"HARRY'S MAMMA POINTED OUT THE LETTERS."—*See page* 4.

THE CHILDS' INSTRUCTOR,

OR

LEARNING MADE EASY

BY MEANS OF

TOYS, PICTURES AND STORIES.

PLANNED ON THE NOW CELEBRATED KINDERGARTEN SYSTEM.

PROFUSELY AND BEAUTIFULLY ILLUSTRATED.

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WARD, LOCK & CO., 10 Bond Street,

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The Child's Instructor.

INTRODUCTION.

INSTRUCTION for very young children can scarcely be made too simple or too attractive. The infant mind should not be wearied with hard lessons, or frightened with an alarming array of dry facts. The object should rather be to lead the child on gradually to habits of application and obedience, than force him to fill his mind with words which to him are completely without meaning. It is from the fear of thus over-taxing the mind that many parents postpone the commencement of their children's education until a comparatively late period, thus losing much precious time, and allowing their little ones frequently to contract habits of indolence and a disregard of discipline.

With most children, after the age of three years is passed, continual play begins to weary, and if simple instruction be not given, mischief will the more surely occupy their little minds, and habits of disobedience may be contracted which in after years will bear bitter fruit.

The present work is to a large extent planned upon the principle of combining amusement with instruction, so that easy and suitable occupation for even very young children may be obtained. Commencing with the ALPHABET, which may be taught entirely by means of the toy presented with this First Part. we proceed to WRITING on ruled paper, and ARITHMETIC taught by pictures of cubes and apples, and the mother or teacher would do well to obtain a set of cubes or small balls, to facilitate this lesson. The letterpress should be

PICTURE PUZZLE FOR TEACHING THE ALPHABET.

Presented with Part I. of "THE CHILD'S INSTRUCTOR," Price 6d. Monthly, Published by Ward, Lock & Co., Warwick House, Salisbury Square, London.

GIRAFFES giraffes

MONKEYS monkeys

OWLS owls

ELEPHANT elephant

JAGUARS jaguars

ZEBRAS zebras

DOGS dogs

CATS cats

DOVES doves

BEARS bears

QUAGGA quagga

FOXES foxes

This Sheet is to be pasted on Stout Cardboard, and the Pictures cut into Slips as marked. Each Slip will then contain one Letter on each side of it, and the part of one Picture. The Slips are to be shuffled in a heap, and the child taught to make complete pictures with the names of the Animals or Birds by the side of each. This should be done for a short time every day, and by this means a child is more easily taught his letters than by any other method.

London: WARD, LOCK & CO.

read aloud to the little pupils, who, being interested in the story told or the familiar chat, will soon take interest in the instruction conveyed.

Then after devoting ten minutes or so to these subjects—for ten minutes at a time is quite long enough to devote to one lesson at first—the pages may be turned, and the teacher will find ready to hand an entertaining story from the pages of History or a fascinating recital from the marvels of Nature. Grammar, Music, Singing, and Behaviour, are treated in the same way, while French and German are taught at first by means of nursery rhymes and pictures; and in the later part of the work will be found pleasant lessons for elder children in Latin, Chemistry, Botany, Astronomy, Physiology, &c.

Our object, therefore, is not only to impart instruction but to impart it in an easy and amusing manner, and to afford a complete *vade mecum* for the "play learning" of Little Folks, from the ages of three to eight.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

I.—TEACHING THE ALPHABET BY TOYS.

YOU are very fond of new toys and games, I know. Now here is a nice new game that you will like very much, and it will be better than many of your toys, because it will help you to read pretty books with pictures in them, and to understand the pictures. Will not that be nice?

Perhaps you will learn to play the game better if I tell you the story of a little boy who learned to play it, and liked it very much. I have written the story here, so that it may be read to you, and if you do as he did perhaps you will learn to read as quickly as he did.

He was playing one day with his bricks, as no doubt you have often played, but he became tired

of them, just as you are often tired, and then he said—

"Oh, mamma dear, what shall I do now? I am so tired of building my bricks."

"Would you like a new toy, Harry?"

"A new toy! Oh, yes, yes!" And the little

HARRY'S NEW TOY.

fellow clapped his tiny hands with delight, and eagerly ran to his mother.

"What is it, mamma? Do show me," he cried.

Quickly his mamma produced a neat little box, and having opened its lid, showed him a number of slips of cardboard, each one having on it a part of a picture, and on each side of the picture a letter.

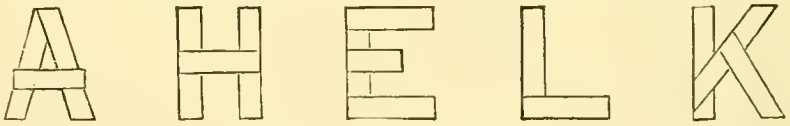
"Oh, mamma, how nice!" cried Harry; "how do I play at this pretty game?"

So then mamma showed him that each slip fitted

on to another slip, so as to make a complete picture of an animal or a bird, having on each side the names thereof printed in large letters, like the picture on page 3. And at the same time Harry's mamma pointed out to him the letters, and made him repeat them after her.

Then she took a book in which the letters were clearly printed in proper order, like those on the opposite page, and again pointing out each one, she pronounced them clearly, one after the other, and made him repeat them after her. "That will do for to-day," she said. "Ten minutes at a time is quite enough. We will try again to-morrow."

And on the morrow Harry's mamma put together all the pictures again, and made him repeat the letters after her, and showed him how they formed the names of the animals, and then he repeated the alphabet two or three times in proper order. Then taking the slips she turned them wrong side upwards, and made letters of them roughly, like this—



And to afford variety she took a slate and drew the letters upon it, repeating rhymes like those on pages 6, 7, and 8. So Harry grew quite interested in these amusing games, and especially with the picture-slips. Of these he grew so fond, that he often played with them himself, and by degrees was able to put the animals together, and call them by their proper names, and read the letters.

A B C D E F G H
I J K L M N O P
Q R S T U V

"WHAT DO THESE FUNNY THINGS MEAN?"

W X Y Z

a b c d e f g h i j k
l m n o p q r s t u v
w x y z

HOW TO FORM THE ALPHABET.

Like a Tent, where two sloping lines meet,
With one straight across them to serve for a seat.

One straight line with two curves at its back,
Resembles a Pedlar with his double pack.

Is a circle, but not quite complete, [meet.
Draw a round with your pen, but don't let the ends

One straight line, with one curve from each end,
Not very unlike the stout Bow that you bend.

Three straight lines, like three sides of a Square,
With one stroke between them to show E is there.

Is exactly the figure of E,
But one line, the lowest, is wanting, you see.

On the pattern of C you may make,
The lower end crossed to prevent a mistake.

Like a Stile, or a Bar to leap over,
Two straight lines, and one joining each to the other.

Stands like a Soldier, upright at his post,
And sometimes each end with a short line is cross'd.

One straight line that curls up from the foot,
If you like, one short stroke at the top you may put.

One straight line with two arms branching forth,
One points to the south, and the other one north.

Two straight lines, like two sides of a Square,
Or the back and the seat of a very straight Chair.

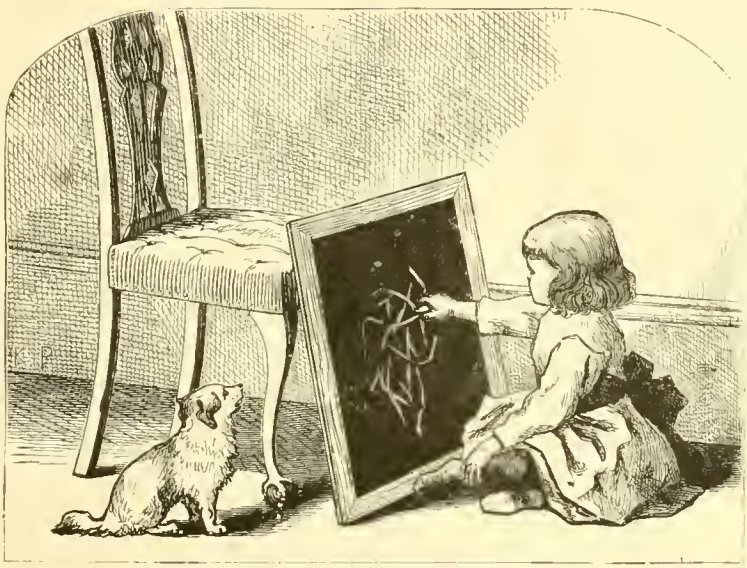
Like a Swing between two little trees,
Two straight lines, and two sloping down, if you please.

N	Is the same, but with one sloping line, So look at it well, and remember the sign.
O	Like a Hoop, or mamma's Wedding Ring, A Circle, with neither beginning nor ending.
P	One straight line, with one curve to its back, Quite easy to make when you once get the knack.
Q	Just like O, with a short curly tail, Like my Dog, or the Hook for your hat on the rail.
R	Just like P, with a curved stroke below, Look well, that the difference from B you may know.
S	Curving to left, then to right, you may make, In the wriggling form of an Eel or a Snake.
T	One line, at top by a second stroke cross'd, Stands up straight and firm like a tall Finger-post.
U	One line downwards, and then curving up, Resembles in figure a rather deep Cup.
V	Something like U, only pointed, not round, Like a Swing, or the pattern called Vandyke, is found
W	Two down strokes, two up, as you see, Like M upside down, or like one double V.
X	Like a Cross, or the Sails of a Mill, Two lines laid across, and as straight as you will.
Y	Like a Wine-glass, with stem and with bowl, Three straight strokes like V on the top of a pole.
Z	Three straight lines, but all zigzag they run ; And now all the twenty-six letters are done.

A NEW NURSERY-RHYME ALPHABET.

WOULD you like to hear to-day
What the letters do and say?

The letter A,
One sunny day,
Took letter B
To Tom's to tea.
The letter C
Cried, "Do take me!"
The letter D
Said French, "*Oui! oui!*"
But letter E
Cried, "Let me be!"
And letter F
Was much too deaf,
Whilst letter G
Had hurt his knee,
With letter H,
In naughty rage.
Cried letter I,
Quite cross, "Pray why
Has letter J
At home to stay,
If letter K
Can go away?"
Said letter L,
"J is not well;"
Said letter M,
"J has to hem
For letter N
And Baby Ben;"
Said letter O,
"J's head aches so;"
Said letter P,
"J cannot see;"
Said letter Q,
"J cannot chew;"
Said letter R,
"J lives too far;"
Said letter S,
"J works for Bess;"
Said letter T,
"J works for me;"
Said letter U,
"For Harry too;"
Said letter V,
"J is too wee;"
Said letter W,
"J will not trouble you;"
Said letter X,
"J will not vex;"
Said letter Y,
"J says good-bye;"
Said letter Z,
"J goes to bed."



AMY'S FIRST ATTEMPTS AT WRITING.

WRITING MADE EASY.

No. I.

DOWN STROKES.

I ONCE knew a little girl whose father went away to India, and she saw her mother writing to him very often; so one day she took a slate, and tried to write also.

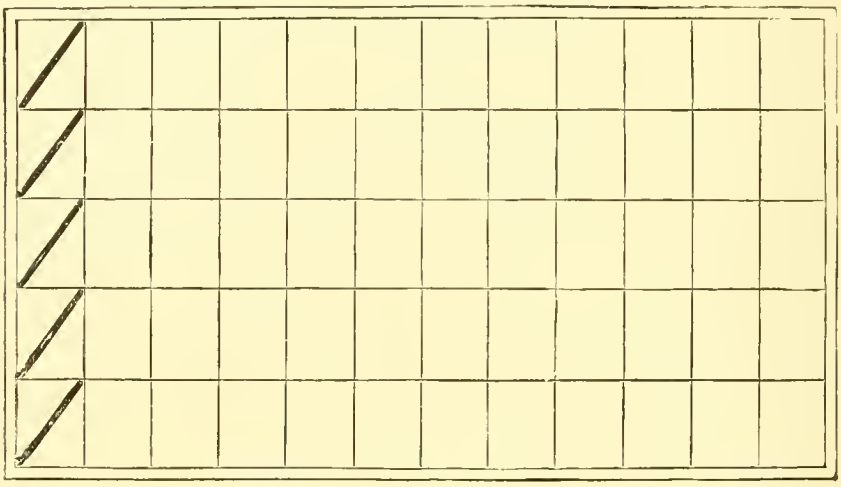
"Amy, what *are* you doing, my child?" said her mother.

"Trying to write, mamma. I want to write a letter to papa as you do when he is away."

"Oh! but you will never learn like that, my darling. Come to this table, and I will show you how to write properly."

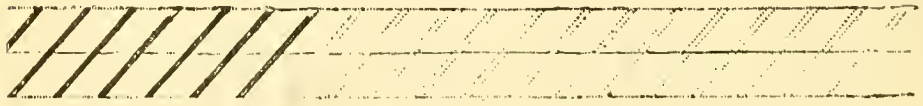
And I will tell you how her mamma taught her, and hope you will prove as quick a pupil.

Amy soon found herself sitting before a slate, upon which mamma had ruled a network of lines and made some slanting strokes, like this—



and then placing a nicely-pointed pencil in her little daughter's hand, she showed her how to draw slanting downward and upward strokes from point to point. And after a time she varied the occupation by ruling lines without the square, like this—

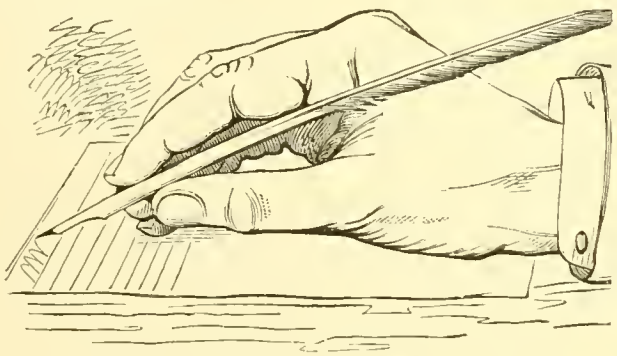
and guided her little hand *over* the dotted strokes, like this—



"Now you must always hold your hand like this, Amy, when you are writing. The pen or pencil

must be grasped by the thumb and the first and second fingers, and held firmly, but by no means stiffly, and the two remaining fingers must support the others, the last one of all resting on the paper."

And Amy's mamma took the pencil in her hand, and showed her exactly how it was to be held, and, after a little time, Amy managed to hold it something like this—



CORRECT POSITION OF HAND WHEN HOLDING PEN

although, to tell the truth, it frequently slipped out of position.

But mamma was kind and patient, and she placed it once more in her little daughter's fingers, in strict accordance with the directions she had just given, and showed her how easy it was to make upward and downward strokes on the paper. The upward strokes were thin, and the downward strokes were heavy and black.

After a while little Amy grew tired, so mamma sent her off to the playroom. But on the morrow the little girl tried again, and in a few days she was able to make some "pothooks." I will tell you about this in the next chapter.

A LITTLE ADDITION SUM.

PICTORIAL ARITHMETIC.

CHAPTER I.

HOW TO WORK ADDITION SUMS.

THERE are very few little boys and girls who do not know how many fingers and toes they possess. They know that they have ten fingers and ten toes. But how do they find this out? Why, by counting, to be sure. Let us begin with the thumb of the left hand. You say—One, two, three, four, five, and then you have finished with the left hand; then, taking the right hand, you say—Six, seven, eight, nine, ten, and there is an end of all your fingers. So you are able to *prove* that you have ten fingers because you have counted them.

Counting is quite easy, you say; so it is when once you have learned your figures. I will tell you what the figures are—1, 2, 3, 4, 5, 6, 7,

8, 9, 0. These are the figures used in arithmetic. Here they are again—

I.		1. One Apple.
II.		2. Two Apples.
III.		3. Three Apples.
IV.		4. Four Apples.
V.		5. Five Apples.
VI.		6. Six Apples.
VII.		7. Seven Apples.
VIII.		8. Eight Apples.
IX.		9. Nine Apples.
X.		10. Ten Apples.

Thus, you see, arithmetic is all *counting.*

The first rule in arithmetic is called *Addition*, because it teaches us how to add figures together, and by this means to find out how many there really are altogether.

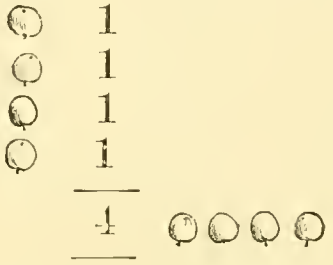
Supposing I had a number of apples in my hand, and I gave *one* to you, *one* to your sister, *one* to your brother, and kept *one* for myself, how many apples would that make altogether?

One apple to you.
One apple to your sister.
One apple to your brother.
One apple for me.

Now, all you have to do is just to count them as

they lie before you, and what is the answer? *Four*, you say; yes, four, of course, because there are four persons, and each person gets *one* apple.

To make an addition sum of this we leave out the apples, and only put down the figures, like this—



That is a much neater way, is it not?

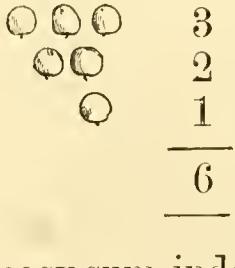
Now, shall we try again? This time we will suppose that I give you *three* apples—your sister *two* apples and your brother *one* apple, and then I have none left for myself. How many apples have I given away?

Three apples to you.

 Two apples to your sister.

One apple to your brother.

If you count all the apples you find *six*, do you not? Now, to make the addition sum of it we will just put down the figures—



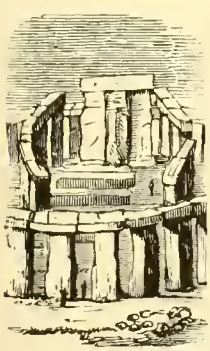
That is a very easy sum indeed. We will try something a little more difficult next time.

AN ANCIENT BRITON IN HIS CANOE.

TALES OF OTHER TIMES;

OR,

THE HISTORY OF ENGLAND IN EASY LESSONS.



PART OF AN ANCIENT DRUID TEMPLE.

I.—THE ANCIENT BRITONS.

MANY hundreds of years ago, the people who lived in this country were very wild, and dwelt in woods. They were called the Ancient Britons, and were very fierce and cruel. Sometimes they used to dress themselves in the skins of wild animals, and they painted their bodies blue with a plant called woad. They made boats of wicker-work covered with skins, and in these they used to catch fish in the rivers. In the picture at the top of this page you can see one of these Ancient Britons paddling along a river. He has a net to catch fish. Another is walking with his boat on his back. These boats or canoes were usually called coracles.

When the weather was cold, the boys and girls in those days were clad in skins. You would not like to have lived in those days, for great numbers of wolves and wild cats infested the forests, and instead of the towns and villages which now stand so thickly over our beloved land, the surface of the country was covered with thick and gloomy woods, and often rendered impassable by marshes and swamps; while here and there a few huts, made of wattle and daub—that is, of branches of trees entwined or "wattled" together, and daubed over with mud or clay—might be seen grouped together.

There were also thick groves of oak trees, and huge piles of immense stones called *temples*, where the Druids were wont to worship and offer up sacrifices. The Druids were the priests of those days, and taught the people, but their religion was not the religion of the true God.

They worshipped the sun, the moon, oak trees, and serpents, and strove to propitiate these heathen deities by offering up human sacrifices. They made huge images of wicker-work, and filled them with living human beings, and then set fire to them, when they perished miserably in the flames.

In addition to being priests, the Druids were also the poets, the judges, and the lawgivers of the people. They were dressed in long white robes, and had long white beards. They dwelt in the groves of oak trees, where they cultivated the mistletoe, and at Christmas-time the Arch Druid, or Chief Druid, cut the plant from its parent oak with a golden knife. They held great feasts when the corn was sown, when it was ripening, and again when it was gathered; and the traces of these old customs linger yet in some parts of England in the May-day games, the fires of Midsummer Eve, the Harvest Home, and the cutting of the mistletoe at Christmas-time.

II.—THE ROMANS IN BRITAIN.

After the Ancient Britons had lived many years as I have just told you, a great and mighty people called the Romans, having conquered France—which, as you know, is very near to Britain—wished to conquer Britain also. So they sailed across the English Channel and landed on the coast of Kent.

Their leader was a very brave and skilful man named Julius Cæsar, and in this picture we see him on his ship urging on his men to attack the Britons and land on their shores. The Britons defended themselves very bravely, and although the Romans obtained a landing, yet many years passed before they quite conquered the Britons. But the Romans

THE ROMANS LANDING IN BRITAIN.

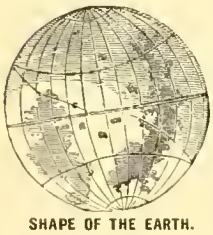
conquered them at last, and kept their country for four hundred years. They made many good roads, so that people could travel from place to place with greater ease than before. They also built towns and large camps of big stones called *castra*. Remains of these camps may still be seen, and some day, perhaps, you will see them. In course of time towns were built on the same places on which some of these camps had stood, and they last to this day, and are even known by almost the same names. Thus Chester, Winchester, Doncaster, Leicester, and many others, are all cities and towns founded by the Romans, and built on the sites of the old Roman *castra*, and their names, you see, are much alike.

PICTURE-MAP, SHOWING THE PRINCIPAL DIVISIONS OF LAND AND WATER.

(*The teacher who reads this lesson aloud should point out in this picture each feature as it is described.*)

SIMPLE LESSONS IN GEOGRAPHY.

1.—WHAT GEOGRAPHY TEACHES US.



SHAPE OF THE EARTH.

ARE you frightened at the long word Geography? Make it into little words, then—into syllables—and you will not be frightened at all. Say *Ge*, and *og*, and *ra*, and *phy*: then all of them together—quickly—Geography; and that will finish it. By doing a little at a time, you see, you get to do a great deal at last. And so you will find it with everything.

Now this English word "geography" comes from two Greek words—*ge*, which means the earth, and *graphe*, a description or writing. And now that I have told you this,

I think you will understand quite easily that geography is a description of what is upon the surface of the earth. And do not let the word "surface" puzzle you. It is very easy. It means, on the outside, on the top, on what you can see and touch; not what is inside.

Of course the earth has a form. It is the same shape as a very, *very*, VERY large orange. You may think by this that it is the same shape exactly as a very, very, very large ball; but it is not, because a ball is round all over, whilst an orange is flattened a little at the bottom and at the top. So is the earth. And the top flattened piece is called the North Pole. and the bottom flattened piece is called the South Pole; and midway between these two there is an imaginary circle, called the Equator. It means that an equal part of the earth is above this line, and that an equal part of the earth is below.

There are two things upon the surface of the earth: one is firm and solid, fit to walk on and to build upon; the other is wet and splashy, dividing if you touch it, letting you fall right into it; closing up all over you; hiding you away as if you had never been. That part of the surface of the earth which is hard and firm is land, as you know; that part which lets you drop into it is water. There are miles and miles of land; for there is a large piece, or tract, of it in one place, and a larger piece, or tract, of it in another; and there are a great many little pieces of it, here, there, and everywhere. But there are so many, many more miles of water, and so many, many more miles of water still, that the land, if gathered all up together and put by the side of the water, would look very little indeed. It is just like this, or just in these proportions:—Cut a piece of paper into four pieces, each piece exactly the same size; then call one piece land and the other three pieces water, and you will know all about it. Or you may think of it in this way:—Of four equal parts, three are water, only one is land.

Now, let us talk about the land.

The largest piece of land is called a Continent; and a continent is so very, very large, it never belongs altogether to one king or one nation, but is divided amongst several. There are three continents on the earth—the Eastern, the Western, and the Australasian. At the big ends or extremities of these

continents there is every now and then a great piece of the land running right off into the sea, being only joined to the continent at one side by a narrow neck of land. Such a piece of land is called a Peninsula. There are several peninsulas.

An Island is a piece of land cut off altogether from a continent, and therefore an island means a piece of land entirely surrounded by water, no matter whether it is small or large.

An Isthmus is a word that will be difficult for you to utter. It is a Greek word meaning "neck"; and that is exactly what an isthmus is. It is a neck of land joining two large pieces together.

When a piece of land juts out into the sea it is called a Cape. This is an easy word, shortened from the Latin *caput*, a head. The sea is always rougher at these heads, or capes, or forelands, or promontories. This is because they are generally rocky; and when the sea is blown against the rocks, the rocks break the waves about, and it always seems as if they were having a very angry quarrel. There are many capes on every coast.

A Coast is the edge of the land where the sea begins.

If the land is very high and uneven, it is called a Mountainous country; if it goes down very low, it is called a Valley; if it is very flat, it is called a Plain. Many mountains all together are called a Chain of mountains; small mountains are called Hills; small hills are called Hillocks. There are mountains that every now and then begin to roar, and hiss, and splutter, and then burst into flame and smoke, hurling up, out of holes at the top, great fountains of red-hot lava. These mountains are called Volcanoes, and the lava from them runs down their sides in dangerous streams, burying people, and houses, and even a whole town. Again, there are high mountains, so high that they are always covered with ice and snow. Huge masses of the snow will sometimes slide right down from their sides, and houses and people are buried by it. These are the principal divisions of land; in our next chapter we shall tell you about the principal divisions of water.

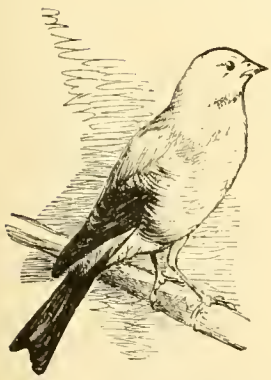
A VOLCANO, OR BURNING MOUNTAIN.

LEARNING TO PLAY THE PIANO.

MUSIC AND SINGING.

CHAPTER I.

THE NAMES OF SOME SINGING BIRDS.



A BEAUTIFUL LITTLE SONGSTER.

I HAVE no doubt that many of my little readers have birds belonging to them, perhaps a canary, a black-bird, a thrush, or, maybe, a sweet-voiced linnet. Whichever bird you may happen to possess, you know that it has a delightful voice, and that its note or song is quite different from the song of other birds.

If a great many birds of different kinds were placed in one room, and all were to sing together, though perhaps each bird possessed a sweet voice, yet the whole sound would not be a pleasant one, because, as each bird sang different music, it would produce what is called discord.

You know that if anyone keeps a bird, it is usual to have a cage to put it in; and you also know that if a great many birds are kept, it is necessary to have a much larger cage to keep them in. This large cage is called an aviary. Now I am going to tell you about a large cage or aviary, and introduce you to all the little birds who live inside it.

This cage is called a piano. Of course you have seen the piano in mamma's drawing-room many times; but I do not suppose you ever thought about its being a cage before.

Just lift up the lid, and you will see a row of black and a row of white birds inside it.

These birds cannot fly away, certainly, but they each have a name, a voice, and a cage to live in, so that we can imagine them to be really singing-birds. But do they sing, you will ask?

Press your finger lightly upon one of the little white birds, and then let it fly up again. Now, do you hear its pretty voice? This voice is only heard when the little bird is touched.

The first thing that you want to know about these little birds is their names. Just look along the cage, and you will see that the black birds are divided into groups of threes and twos, while the white birds lie side by side all in a row.

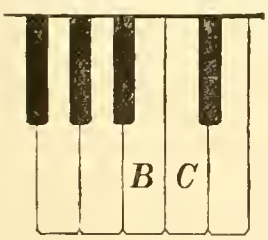
If you were to count the white birds you would find, perhaps, forty-seven, perhaps fifty-two, according to the size of the cage; and you will perhaps be surprised to hear that all these birds have only seven names between them. These are very easy to remember, for they are only the first seven letters of the alphabet—A, B, C, D, E, F, and G.

Now let us find out where A is. We will call the groups of three black birds simply black-birds, and we will call the groups of two, crows.

Look at the cage, and find one of the groups of black-birds. Do you see that there are two white birds lying between these three black-birds? The second of these two white birds is called *A*. Look at the first picture here, and you will see where it is at once.

No. 1.

Count all the A's in the cage, and see how many you can find. You know just as well as I do that B and C come after A, so the next two birds must be B and C. These two white birds have no black bird to separate them. Point them out in the cage, and then look at picture *two*, and see if you are right.



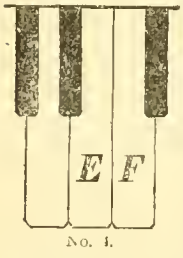
No. 2.

Now D is perhaps the easiest of all the birds to remember. It is so cosily placed between the two black crows that it is impossible to miss it. D stands for DUNCE, as no doubt you know, and I think all the little girls and boys who cannot find the little white bird D—after they have once been told where it is—ought to be called DUNCES too.

Don't you? Here is a picture of D. Count all the D's in the cage.

No. 4.

E and F are the next two white birds, and these, like B and C, have no black bird to separate them, but just lie lovingly together, like twin sisters. Look at picture *four*, and you will see where they are, and then compare them with those in the cage, and count how many you can find.



No. 4.

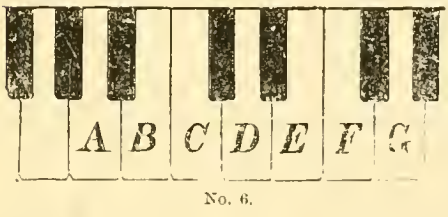
Now we have come to G, which is the last of the little white birds. This of course comes after F, and is the first of those two white birds which lie between the three black-birds.

Count all the G's in the cage. Have you got them? Now look at picture *five*, and see if you are right.

No. 5.

Picture *six* shows all the little birds lying side by side in their proper order. You see that they are just the same as those in the cage.

Now you have really learned your first lesson in music, and I may suppose that if you want D or F, C or A, you will not have to begin at A, and count up to each bird, but will be able to pop your finger on whichever little bird you may happen to want. Next time I will tell you something more about these birds.



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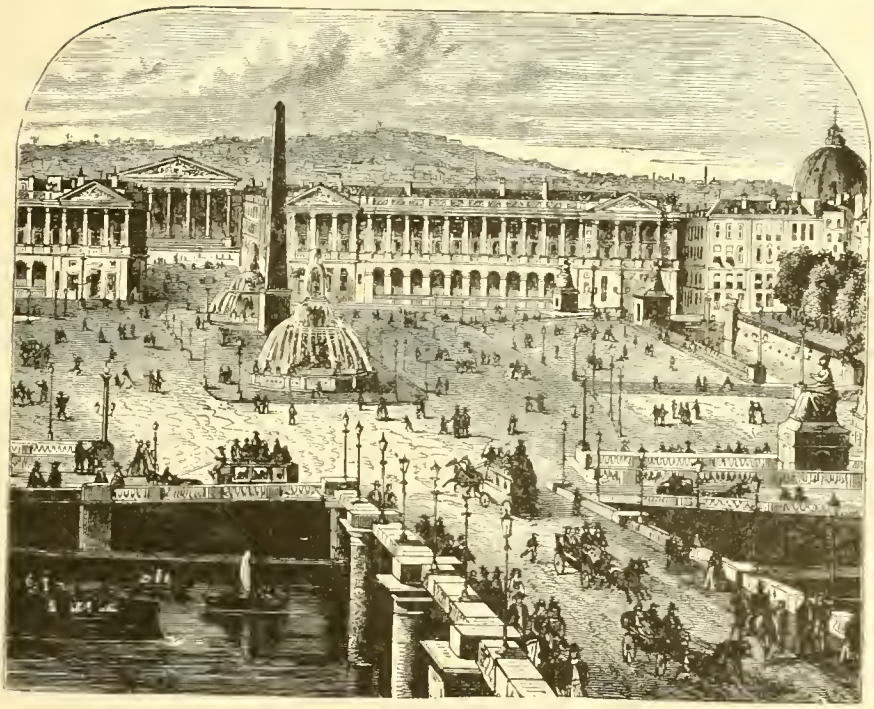


A PICTURE OF PARIS, WHERE THE BEST FRENCH IS SPOKEN.

EASY LESSONS IN FRENCH.

I—THE FRENCH ALPHABET: L'ALPHABET FRANÇAIS.

A The French A sounds Ah,
To rhyme with Mamma.

B The French B sounds Bay,
To rhyme with To-day.

C The French C sounds Say,
To rhyme with Away.

D The French D sounds Day,
To rhyme with You may.

E The French E sounds Ay,
To rhyme with Your play.

G The French G sounds Jhay,
To rhyme with The hay.

H The French H sounds Ahsh,
To rhyme with a Marsh.

I The French I sounds Ee,
To rhyme with The sea.

J The French J sounds Djee,
To rhyme with Your tea.

K The French K sounds Kah,
To rhyme with Papa.

P The French P sounds Pay,
To rhyme with Astray.

T The French T sounds Tay,
To rhyme with Dog Tray.

V The French V sounds Vay,
To rhyme with A dray.

X The French X sounds Eeks,
To rhyme with It squeaks.

Y The French Y sounds Ee-grek,
To rhyme with Its neck.

Q Whilst French Q and U
U Are like French Feu Jeu.
W And French has no double U
Ever to trouble you.
F L And F, L, M, N.
M N O, R, S, and Z,
O R Are just as in English,
S Z With all of it said.

So, jump on my knee,
The pictures to see;
And give me a kiss
For teaching you this.

THE ALPHABET IN FRENCH ONCE MORE.

L'ALPHABET FRANÇAIS ENCORE.

A for Abeille.

Une Abeille is a Bee;
It flies too near me.

B for Beurre.

Some Butter is Du Beurre;
Puss thinks it is for her.

C for Chou.

A Cabbage is Un Chou;
For dinner it will do.

D for Demoiselle

Young Lady is Une Demoiselle;
Something like my sister Nell.

E for Epée.

A Sword is Une Epée:
Tom threw his sword away.

F for Fraise.

Some Strawberries. Des Fraises;
So nice in summer days!

G for Grenouille

Une Grenouille, a Frog:
Jumps quickly from the dog.

H for Habit.

Our clothes are Nos Habits;
How smart we are, you see.

I for Ilot.

Un Ilot is An Islet;
In the river we espy it.

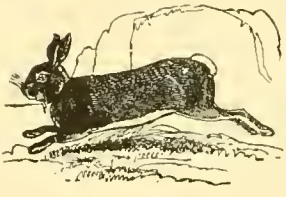
J for Joujoux.

Some toys are Des Joujoux;
Nurse brings them all for you.

K for Kangourou.

You know The Kangaroo;
You stroked it at the Zoo.

L for Lapin.



Mon Lapin is My Bunny;
He looks so very funny.

M for Maison.

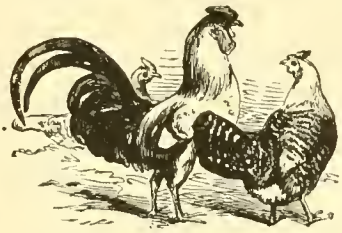
Une Maison is A House,
And from it creeps a mouse.

N for Nanan.

Des Nanans means Some Sweets,
Which Mabel buys and eats.

O for Oiseau

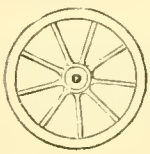
Un Oiseau is A Bird;
Its song you've often heard.

P for Poule. 

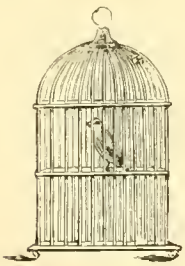
A Chicken is Une Poule;
One hops upon the stool.

Q for Quai.

A wharfside is Un Quai;
Ships come and sail away.

R for Roue. 

Une Roue, dear, is A Wheel;
Runs all the way to Deal.

S for Serin. 

Un Serin, A Canary;
Its cage inside the dairy

T for Toupie.

A Peg-top, Une Toupie;
For brother Jack and me.

U for Uhlan.

Un Uhlan has a lance
In Germany, not France.

V for Valise.

A Trunk is Une Valise,
Much higher than my knees.

X for Xénophon.

With Xénophon, the Greek,
All scholars liked to speak.

Y for Yeux.

Vos yeux, love, are Your Eyes,
As pretty as the skies.

Z for Zouave.

Des Zouaves, jeunes et beaux,
To Algiers have to go.

There, now you have the A, B, C,
Pray, come and say some French to me;
Say Toupie, Oiseau, Epée, Rone,
Un Ilot, Uhlan, Kangourou;
Say Beurre, and Fraise, Valise, and Chou
Say Habit, Xénophon, Jonjou;
Say Nanan, Maison, Lapin, Quai,—
And that is all I want to-day

[*This is given as an exercise in pronunciation.*]

Next time I will tell you how to talk to a little French boy if he were to come into your nursery.

LANGUAGE PICTURE LESSONS.—No. 1.

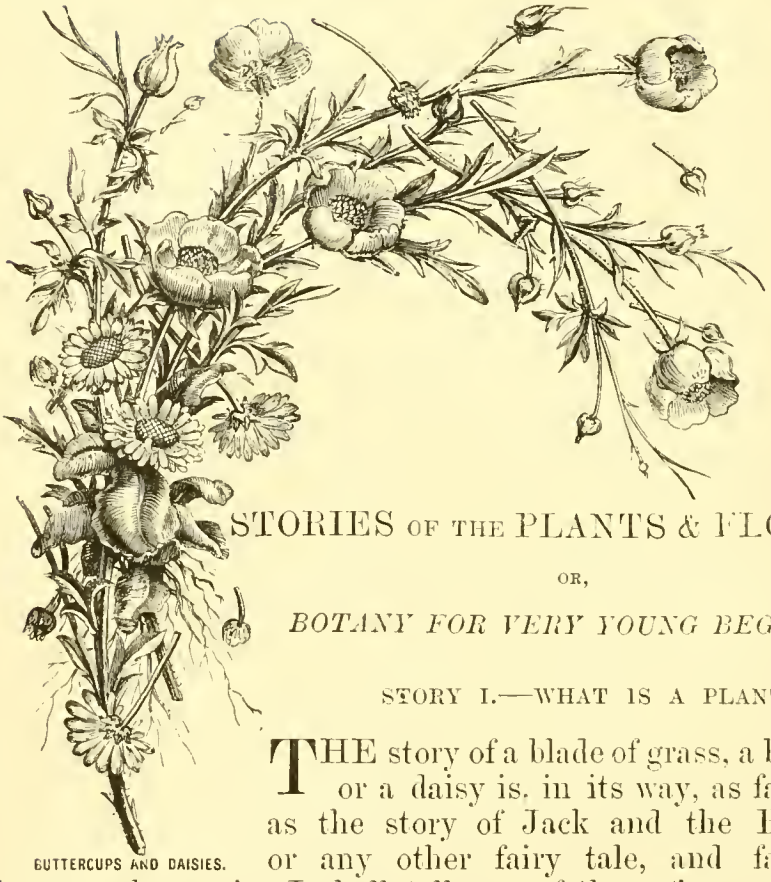
English—My Sister.
French—Ma Sœur.
German—Meine Schwester.
Latin—Mea Soror.

English—My Brother.
French—Mon Frère.
German—Mein Bruder.
Latin—Meus Frater.

English—Our Baby.
French—Notre Enfant
German—Unser Kindlein.
Latin—Nostra Infans.

English—Our Father.
French—Notre Père.
German—Unser Vater.
Latin—Noster Pater.

English—Our Mother.
French—Notre mère.
German—Unsere Mutter.
Latin—Nostra Mater.



BUTTERCUPS AND DAISIES.

STORIES OF THE PLANTS & FLOWERS;

OR,

BOTANY FOR VERY YOUNG BEGINNERS.

STORY I.—WHAT IS A PLANT?

THE story of a blade of grass, a buttercup, or a daisy is, in its way, as fascinating as the story of Jack and the Beanstalk, or any other fairy tale, and far better, because the stories I shall tell you of these flowers are true. Perhaps you are familiar with the sight of buttercups, daisies, fox-gloves, and other wild flowers. They grow in the fields and woods, where children often play. Many a time you have carelessly plucked them up, giving, perhaps, scarcely a thought to them; but you were then handling wonderful and beautiful things. The beauty of them is evident enough, and their wonders we shall tell in these lessons.

Now, if you were asked to tell the difference between a stone in the road, a plant in the meadow (say a buttercup), and the snail crawling about with its little house or shell on its back, it would, no doubt, be hard for you to answer such a question. You would require to think, and after much thinking you might come to some such result as this:—The stone differs from the plant and animal in having

no life; and the plant and snail, which both *possess* life, differ from each other in this, that the former is fixed in one spot and cannot move about from place to place, whereas the latter can move about in search of something to eat, and when it has found something that suits it, it takes it into its mouth and eats it.

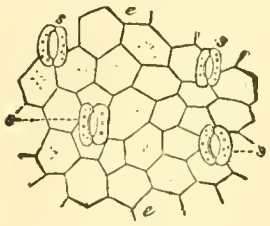
From this it appears that the plant occupies a middle position between things like stones, which are called *minerals*, and creatures like snails, which are called *animals;* all things like the plant are called *vegetables*. Hence, when men have tried to put all the things on the earth and in the sea and air into three large groups, they have these three—animals, vegetables, and minerals.

Botany is the science which teaches us all about the vegetables, how they live and how they die, how they spread themselves about the earth, and how they are of very great use to man. It is an interesting and a useful subject, and it has to deal with some of the loveliest objects on the earth. For what is more beautiful than a flower, in its wonderful delicacy and regularity of build and charm of colour?

Now, how does one of these little field-flowers live? There it is, fixed in one position in the field, from which it can never move. It is not like a stone, which requires no nourishment, and might remain for ever in one place without any inconvenience; nor is it like an animal, which, although it requires food, has been provided with power to move about and seek for it. The food of this plant must be brought to it, or it will die. And its food is brought to it, so that it has no need to move about. The raindrops from the clouds provide it with drink; the air carries it something to breathe and grow fat on; and the moist earth gives to its roots many of the things from the ground which are necessary to strengthen it.

The substance which the leaves of plants breathe is carbonic acid. This carbonic acid is an invisible gas, and it is formed whenever wood, charcoal, or coal is burnt; it is therefore always pouring out of our chimneys. Animals cannot breathe it without being suffocated. But when it enters into the little mouths on the surface of the leaves of a plant, the carbonic acid is broken up. For you must know that this carbonic acid is made of two things—carbon

(or charcoal) and oxygen. The carbon is kept by the plant to help it to grow, and the oxygen is given back to the air.



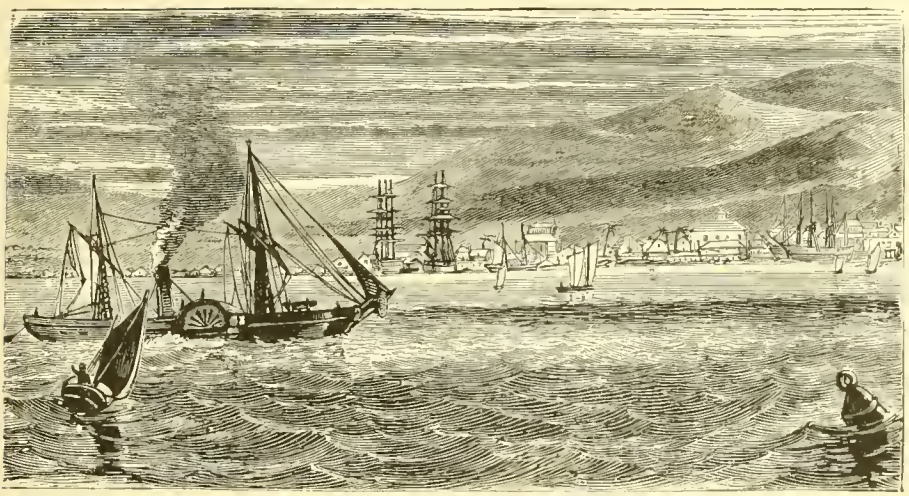
BREATHING MOUTHS OF PLANTS.

You cannot see the little mouths on the surface of a leaf without a powerful magnifying instrument called a microscope. With the microscope these little mouths (ssss) look very much as shown in this cut.

This wonderful work of breaking up carbonic acid within the leaf of a plant is carried on, like a great deal more of Nature's work, in a silent way; so that you may go through a forest where there are millions of leaves, and all of them together cannot make evident to the ear the breaking up of carbonic acid which is being industriously carried on in them. We do not know how it is managed; but it appears that this mysterious work can only be carried on in *sunshine* by the *green* of the leaf; so that the *green* of the leaf and *rays* from the sun are needed to break up the carbonic acid. How great is the amount of work done by the green of the leaf and sunshine in a single hour of a summer's day it would be hard to tell, but the work goes on without ceasing, so long as the sun shines on the leaves.

Our little field plant, however, only receives one part of its nourishment from the carbonic acid in the air, and it requires something else besides carbon to grow on. The other things it requires, it gets from the ground, where its roots spread in various directions. In the plant there is carbon, oxygen, and hydrogen, which form the wood; but besides these substances there are some others, which are left as *ashes* when the plant is burnt. In these ashes there may be several substances, containing sulphur, phosphorus, potassium, calcium, magnesium, iron, nitrogen, hydrogen, and oxygen, and as these ashes formed part of the plant before it was burnt, all these various substances have got into the plant from the earth.

The carbon from the carbonic acid, and other substances from the ground, build up the plant, no matter whether it be a tiny field plant, or an oak of the forest. It is found that different plants take different substances from the ground, some also taking more of one substance than another will.



KINGSTON, JAMAICA, WHENCE A GREAT QUANTITY OF SUGAR IS BROUGHT TO ENGLAND.

CHATS ABOUT COMMON THINGS.

I.—ABOUT SUGAR.

THE SUGAR CANE.

YOU all know what sugar is, and how sweet it tastes. Doubtless you would like to know something about it, and how it is made. It is a great traveller, and comes to us from other countries. Some of it is made from beetroot, in France; but the greater part is made from the juice of a plant called the sugar-cane. This plant cannot thrive in cold weather, and therefore it only grows in very warm countries. The places where it grows most plentifully are the West Indies and the southern part of the United States. A great deal of it grows on the island in the West Indies called Jamaica.

It is a very large and handsome plant, sometimes growing to the height of fifteen feet. The stem is round and is jointed, so that it looks as if it were made of a number of short pieces,

joined together. At the top is a large beautiful flower, with long pointed leaves.

It is planted in the autumn, between the months of August nd November, and it is generally ripe by the following March r April. It is easy to tell when it is ripe, for the outer skin of the cane becomes hard, dry, and smooth, almost like a walking-stick. It is then cut down, the leaves stripped off, and a few of the joints nearest the top are cut away. The remaining portions are then cut up into pieces about a yard long, tied up in bundles, and carried to the mills.

CUTTING DOWN THE SUGAR-CANES.

Care is taken to cut the cane as close to the ground as possible, the richest juice being found in the lower joints. After the canes are taken away, the stumps are cut down to a few inches below the surface of the ground, and then covered up with mould. The upper parts of the cane and the leaves are used to feed cattle.

When the bundles of sugar-cane arrive at the mills, the first thing is to crush them. A negro spreads them out in order, and they are then passed between two iron rollers, which completely crush them as they go through. The juice thus pressed out flows into vessels, called clarifiers, placed beneath to receive it. The canes are then passed through two other rollers, placed closer ogether, and all the remaining juice squeezed out of the cane, hich flows into the clarifiers; these are large enough to contain some hundreds of gallons each. The juice is thick, of a dull olive-green colour, and, of course, very sweet to the taste.

As soon as the clarifiers are filled with the juice, a small quantity of lime is added. The vessels are then placed over a furnace, the fuel for which consists of the crushed canes, out

of which the juice has all been pressed. This dry refuse of the canes is called *trash.*

The juice is now boiled, and a quantity of scum rises to the top; this is carefully skimmed off, after which the juice is of a clear bright yellow colour.

The next thing is to remove it into a series of copper vessels, one after another; in each it is boiled, and as the water evaporates, the juice at last becomes a soft mass. Then it is again removed into other vessels to cool, and whilst cooling it is stirred. After this, it is placed in large casks called hogsheads. There are holes at the bottom of these casks, which are placed over large cisterns, and here it remains for three or four weeks, the last of the moisture draining slowly away through the holes. It is now called Muscovado, or, as we should say, brown sugar; and the liquid part which is drained off is called Molasses. The casks are now covered in and fastened, and sent on board ship. The sugar, however, is still rather moist, and a great deal of molasses drains off from it afterwards.

About seven pounds of juice will make one pound of raw sugar, and it takes nearly twenty cartloads of canes to make a single hogshead of sugar.

The better kinds of sugar are refined in different ways. One plan is called *claying.* The sugar is put into pointed earthen moulds, called *forms*, the point (in which there is a hole) being downwards. A layer of clay is placed on the top and wetted with water, which slowly filters down, and causes more of the molasses to drain off than in the common sugar.

And now I will tell you how *claying* was discovered. It happened one day that a fowl which had been walking in the mud, passed over one of the cooling vessels full of sugar, and it was noticed that where any clay from her feet stuck to the surface, the sugar was of a better colour. So it was found that clay caused more of the molasses to run through than anything else.

Loaf or white sugar is made by re-boiling the brown sugar with white of egg and bullock's blood, and by submitting it to the *claying* a great many times. In some cases the re-boiled sugar is filtered through powdered charcoal to cleanse and whiten it. And thus you get those nice white pieces of sugar to sweeten your bread and milk or cocoa.

ADAM AND EVE AFTER THE FALL.

SCRIPTURE STORIES.

CHAPTER I.

THE GARDEN OF EDEN.

THERE are very few little boys and girls who do not love to hear stories, especially those grand old stories told from the Holy Book, which we call our Bible.

Most of you have been told, and no doubt remember when you look at this beautiful world, that God made it all.

When God had made the world all ready for man, He created a man, whom He called Adam, and then a woman, whom He called Eve; and placed them in a beautiful place, called the Garden of Eden.

The flowers and trees were so beautiful, and there were so many different kinds, that Adam and Eve were never tired of gazing on their beauty—even the little daisy gleamed like brightest silver in the sunshine, and each separate blade of grass was just as fresh and green and fair to look upon as were the tall trees lifting their proud heads to try and touch the beautiful blue sky above them. You would think, with all this beauty, that Adam and Eve would have been as happy as it was possible to be. They fed on the delicious fruit which grew in the garden; the animals were so tame, that lions and tigers, with soft silky coats and gentle faces, would lie at their feet, or gambol with each other as innocently as kittens. God took care of them all, and so long as Adam and Eve loved and obeyed Him, they were perfectly happy.

There was one tree in this Garden of Eden which God told them they were not to eat; there were plenty of other fruit-trees which they might use for food, but this one tree God desired that they should not touch.

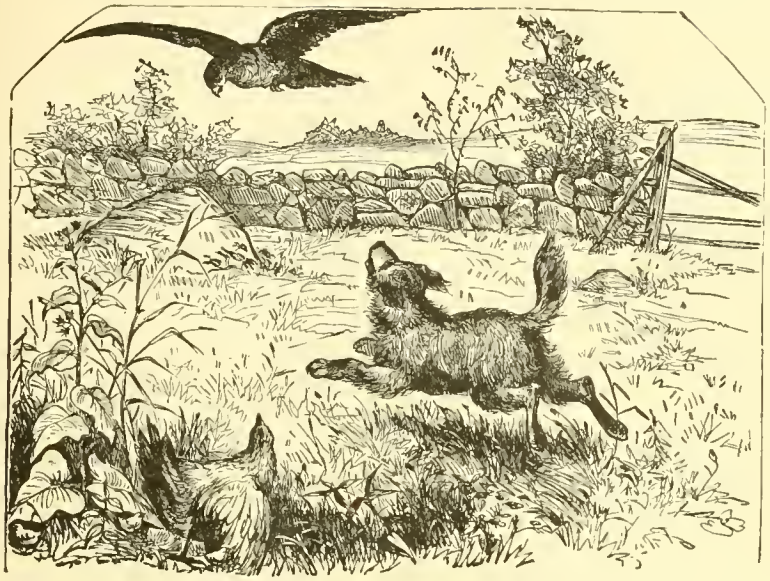
Eve would sometimes stand gazing at this tree; its leaves were as beautiful as those of the other trees, its fruit looked just as tempting, and yet she must not touch it. It would have been far better

for her to have gone away quite to another part of the garden, and not to have looked at this tree again; for every time she looked at it, the longing to taste its fruit grew stronger, and she began to forget all that God had done for her. Evil thoughts came into her heart, and she determined to disobey Him. She approached the tree slowly, just like a guilty thing, looking all around her to see if God were near, and was watching her. Perhaps she drew back again, thinking, "I will leave it until to-morrow;" and then she just put out her hand and plucked some of the fruit, and tasted it, almost expecting to find it bitter. It tasted sweet, and she ate some more, and then took some of it to Adam, and told him to eat it too.

At first Adam refused to disobey the kind God, who had given him life and then made him so happy; but when Eve tempted him, by telling him that it was sweet to the taste, he took it from her hand and ate of it too.

As soon as they had both eaten, they knew how wicked they had been, and tried to hide themselves from God, but He was very angry with them, and turned them out of the beautiful garden, and told them that they had brought sin into the world by their disobedience, and that it would never be so fair again.

Just think of all the happiness this first man and woman lost *by their one great sin of disobedience.*



[This is a picture of nouns. The Dog, the Birds, the Stones, the Grass, the Flowers, the Gate, the Trees, the Ground, are all nouns].

GRAMMAR.

CHAPTER I.

A CHAT ABOUT NOUNS.

BABIES cannot talk. Of course my little readers know that, just as well as I do. They know that babies only pick up a word here and there, such as MAMMA, PAPA, CAKE, or any other word which they hear most frequently. Well, when you were a baby you had to be taught *words*. Now I am going to teach you the *best* words, and how to use them in the *best* way. This is what we call Grammar. Let us try to understand what grammar really is.

The language which we use here in England is called the English language, as I have no doubt you already know; and there are two ways of speaking it—a right way and a wrong way. When correct grammar is written or spoken we say it is good English; when no grammar is used at all—like the

language spoken by the poor little boys in the street—we say it is bad English; and every little lady and gentleman ought to learn grammar, so that they may speak good English. The English language, like all other languages, is made up of words and sentences.

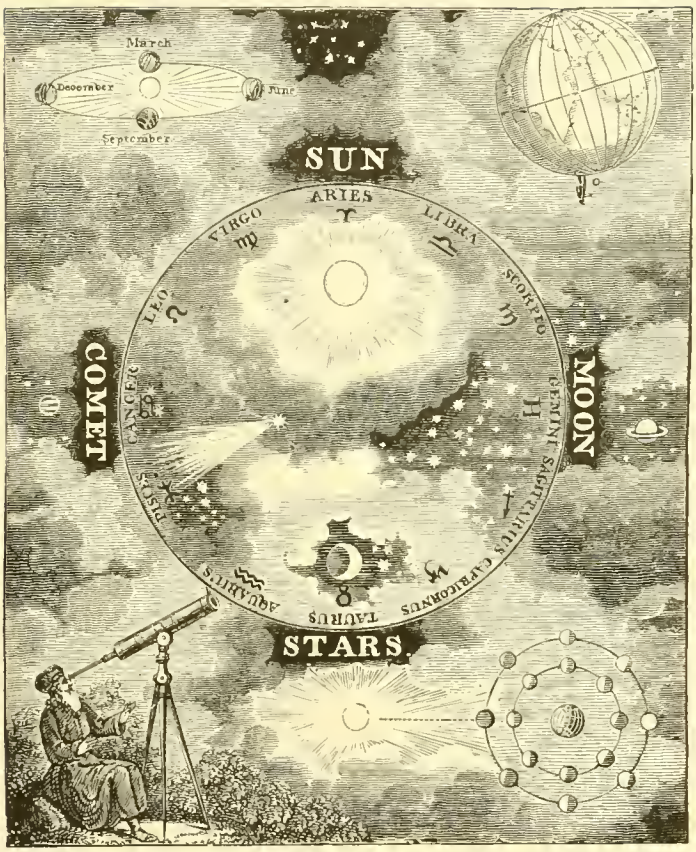
You know what a word is, of course? Book is a word, so is paper, and gold; and I daresay you know what a sentence is, too. Please give me some cake, is a sentence. I love you, is another sentence; and you cannot speak at all without bringing in words and sentences. But how to make good sentences? Ah! that is the very reason why you should learn grammar.

The English language is made up of nine different *sorts* of words. These are called the nine parts of speech. Will you remember it? Only nine? you will say. Yes, only nine; because so many words belong to one *sort* or *kind*. The first sort or kind is called a Noun. Everything you can see, or touch, or taste, or smell, or even talk about, is called a noun. Boy, girl, man, woman, desk, boat, key, brush, apple, rose—all are nouns.

Tell me a noun that you can see. Bird?—Yes, that is right. Now one that you can touch. Table?—Yes. One that you can taste. Sugar?—Yes. One that you can smell? Flower?—Yes. Remember that a noun is the name of any place, any person, or any thing; and that hundreds and thousands of the words in the English language belong to the kind or sort which we call *nouns*.

But you have not learned all about nouns yet. There are two kinds of nouns,—Proper and Common. The names of people and places are called *proper nouns*. John, Kate, Alfred—these are proper nouns, because they are the *names* of particular boys and girls, but if we merely say boy or girl, without giving the name of any special boy or girl, they would be common nouns. A proper noun always points out some particular or special person or place, such as Ellen, which is the name of some particular girl; and London, which is the name of some special town.

Now, suppose you write out a list of proper and common nouns. In the next chapter I will tell you about another part of speech



STORIES OF THE SUN, MOON AND STARS.

I.—STARS AND PLANETS,

WHEN you have looked out into the dark night, and the sky has been clear, you have seen myriads of bright, twinkling lights, and one large bright light, like a silver shield, in the dark blue dome above. And if you asked what these bright lights were, you were told they were "stars," and the large bright light was called "the moon." Now I am going to tell you some stories about the stars and the moon, and also something very interesting about the beautiful sun, which gives us light by day. The name of the science which treats of the stars, and the laws which govern them, and their

movements, is called As-tron-o-my. This word comes from two Greek words, *astron*, a star, and *nomos*, a law.

If you look very closely at the sky on a clear night, you will see that some of the stars, and by far the greater number of them, "twinkle," while a few burn brightly and steadily. The former are called stars, and the others are known as "planets." But as there are so many more stars than planets, they are often spoken of as stars.

Now, what is the difference between planets and stars? There are many points of difference; I will tell you some of them. First of all, the planets are much nearer to us than are any of the stars, although the planets themselves are very far away. Then the stars are like our sun, only so much farther off, that their light appears much less to us; but the planets are something like our earth, and look bright only by borrowed or reflected light, as a looking-glass looks bright when near gas or a candle; while the stars, like the sun, shine by their own light.

The stars are so many millions of miles away, so deeply sunk into space, that though they are so immensely large they seem quite small to us, and give us only the twinkling light you see. But the planets are not so large, though they seem to us about the same size or even larger; this is because they are not nearly so far away.

But there is another great difference between the stars and the planets, and one which you can easily observe for yourselves. If you look at the sky to-morrow night, you will see that the planets, or those bright lights which do not "twinkle," are in a different position from that which they occupied last night, while the stars will be in much the same position. In fact, the planets change their position every night, and this is the reason why they were called planets, which means "wandering stars," because they have always been seen to alter their position night after night.

The reason of this is that they, like the earth itself upon which we live, revolve round the sun at different distances. There are eight of these planets, including the earth. They have all been named after the old heathen gods,—Mercury, Venus, Mars, Jupiter, Saturn, Uranus, and Neptune.

To put this clearer, let us make a little experiment. Let

us put a lamp on the table, that shall represent the sun ; now a little way off place a small flower-seed, that shall represent the planet Mercury ; then a little farther off place a pea, that shall represent the planet Venus ; then farther off still place another pea, that shall represent our earth ; then farther off still from the lamp place another small flower-seed, that is Mars ; farther off again place an orange, to represent Jupiter ; farther off yet, another orange for Saturn ; again farther off place a plum, for Uranus ; and farther off yet, place a ball for Neptune. Now imagine that all these seeds and fruits and the ball were whirling each in its own circles round the lamp globe, and you will get some idea of why the planets are seen to alter their position from night to night.

But now take another lamp, and place it on another table, a great way off—that represents a star ; and then place another on another table—that represents another star ; and then imagine you have a number of other lamps on other tables to represent stars. Now, you will see clearly the difference between planets and stars. *The stars are hot, brilliant suns, like the sun that gives us light every day ; the planets are cold globes*, of which the earth on which we live is the type, and all of them revolve round the sun.

It is almost certain that the stars have planets whirling round them, even as our sun has, but they are so far off that we cannot see them, even with a telescope.

But you have seen other things in the sky besides the stars and planets ; you see the sun in the day-time and the moon at night, and sometimes you have seen, or someone whom you know, has seen a comet ; that is, a bright star with a long fiery tail. All these things we shall talk about, and I am sure you will like them very much. In the next chapter we shall tell you something about the moon.

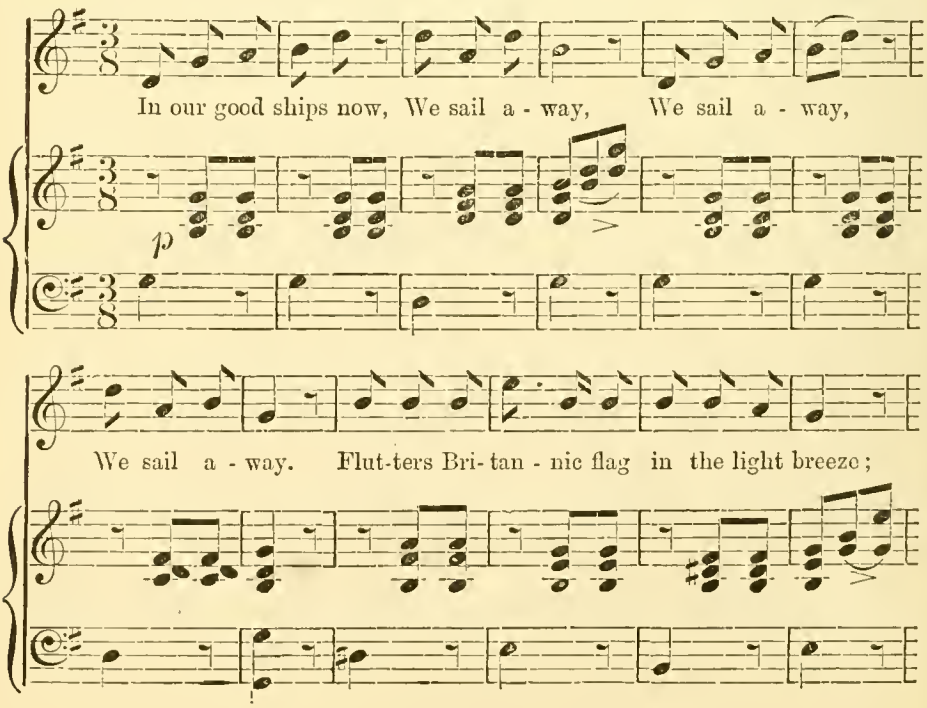
And all these wonderful stars, as well as our own earth, were all created, and are all kept in their appointed places, by that great and good God who made you, and who says to you in the Bible, " My little child, I want you to love Me and to obey Me, and then you will be happy."

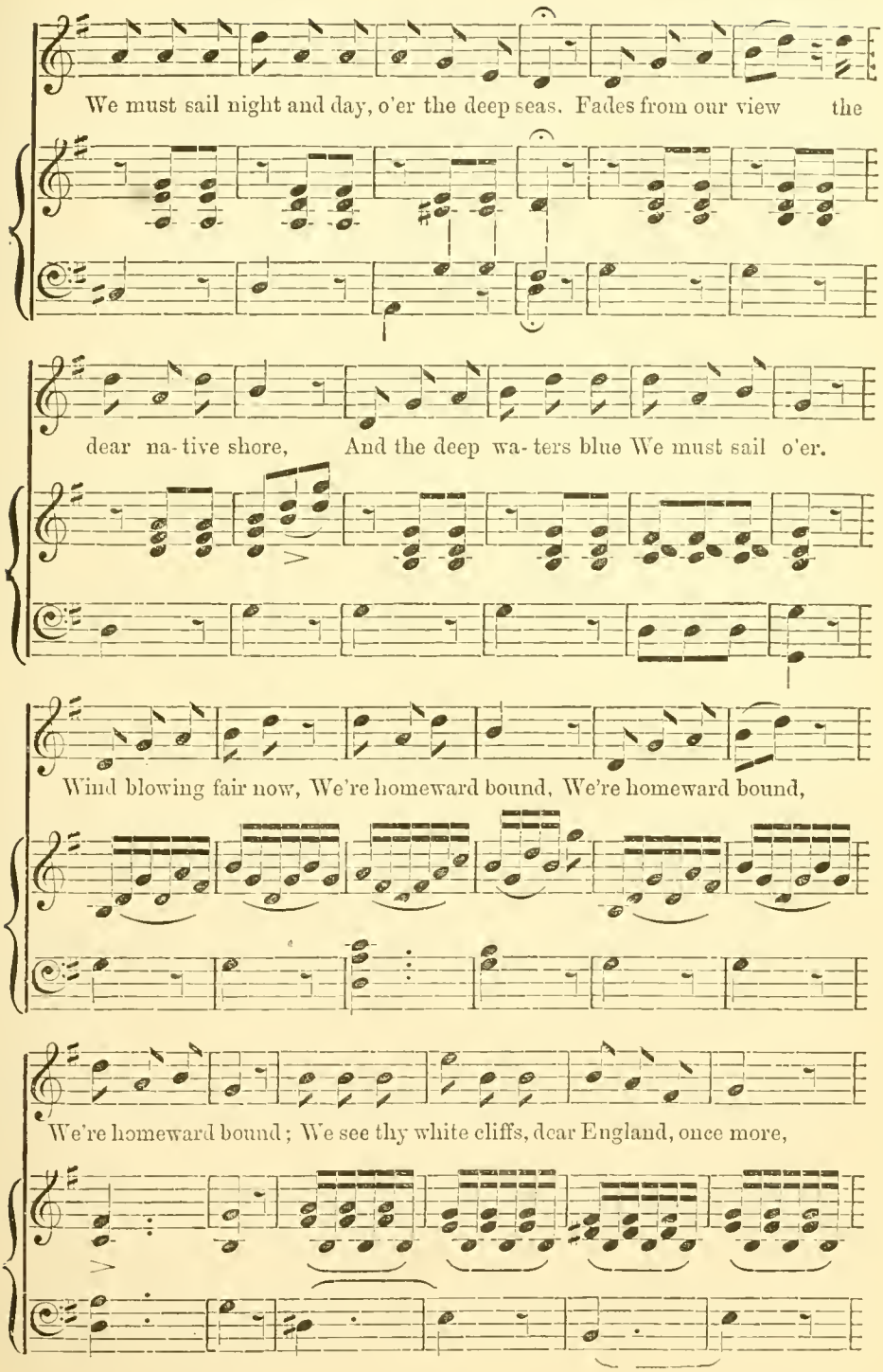
KINDERGARTEN GAMES AND SONGS.

I.—THE SHIP.

THERE are two ways of playing this game. In one the ship is formed by three or more rows of children marching side by side. Handkerchiefs stretched from one child to another represent the ropes; a child in the centre should carry a flag.

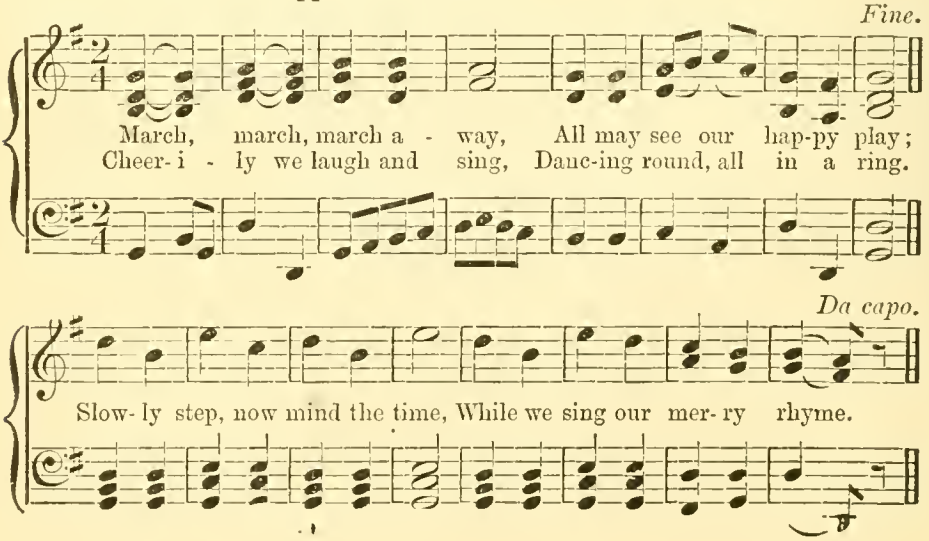
In the other method a certain number of children (as many as may be found convenient) represent the sides, one the bow, one or more the stern, and one the rudder. In the space enclosed by the sides are children representing passengers. Others may stand outside and represent the waves. When the music commences they march off in step, to represent the sailing of the ship. The rolling may be represented by those at the sides swaying to and fro occasionally; such motions must not be made except together and rhythmically, at the teacher's direction. If there are a considerable number of children in the class, two or more ships may be formed. In this case they can sail one following the other, or in opposite directions; the motions, however, of each must be simultaneous, in order that the whole class may be under the control and guidance of the teacher, and that they may follow the music. It should be remarked that no rigid rule in this or in any of the Kindergarten games need be invariably followed. If a teacher can suggest any modification or improvement in a game, it should certainly be adopted. This remark applies also to the music. This has been chosen entirely with reference to the games, to whose movements it is an accompaniment. A very moderate knowledge of music will, of course, enable a teacher to make such additions or alterations as may be necessary to suit a modification of the game.




We must sail night and day, o'er the deep seas. Fades from our view the
dear na-tive shore, And the deep wa-ters blue We must sail o'er.
Wind blowing fair now, We're homeward bound, We're homeward bound,
We're homeward bound; We see thy white cliffs, dear England, once more,

II.—KEEPING TIME.

THE children form a circle, and move round from left to right, or right to left, keeping time with their feet to the music; the pace is first slow, then quick. Or two circles may be formed, one inside the other, and may move in the same or in opposite directions.


Fine.
March, march, march a - way, All may see our hap-py play;
Cheer- i - ly we laugh and sing, Danc-ing round, all in a ring.
Da capo.
Slow- ly step, now mind the time, While we sing our mer- ry rhyme.

CAN'T YOU READ, PUSSY?

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

II.--WORDS OF TWO AND THREE LETTERS.

WHEN Harry had learned his letters by means of the picture slips, as I told you in the last chapter, his mamma began to teach him little words of two and three letters. Three of these were given him to learn every day, first, words of two letters, like this—

am	we	so	is	me	on
as	be	go	it	my	ot
an	he	no	in	mo	ox

Then, words of two and three letters, which he learned thus—a d, ad; l a d, lad, &c.

ad lad
ad mad
ad sad

ag bag
ag lag
ag fag

at cat
at fat
at mat

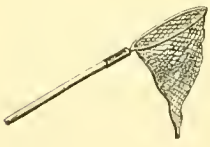
an man
an tan
an pan

ap map
ap lap
ap tap

at rat
at sat
at pat

an fan
an van
an can

am ham
am jam
am ram



ed bed
ed red
ed led

et net
et pet
et let

en hen
en ken
en men

eg leg
eg peg
eg beg

id kid
id lid
id bid

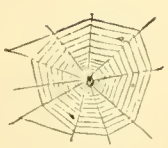
it kit
it mit
it pit

in pin
in win
in din

ig pig
ig wig
ig dig

og dog	od rod	op top	on don
og log	od nod	op pop	on bon
og fog	od hod	op lop	on ton

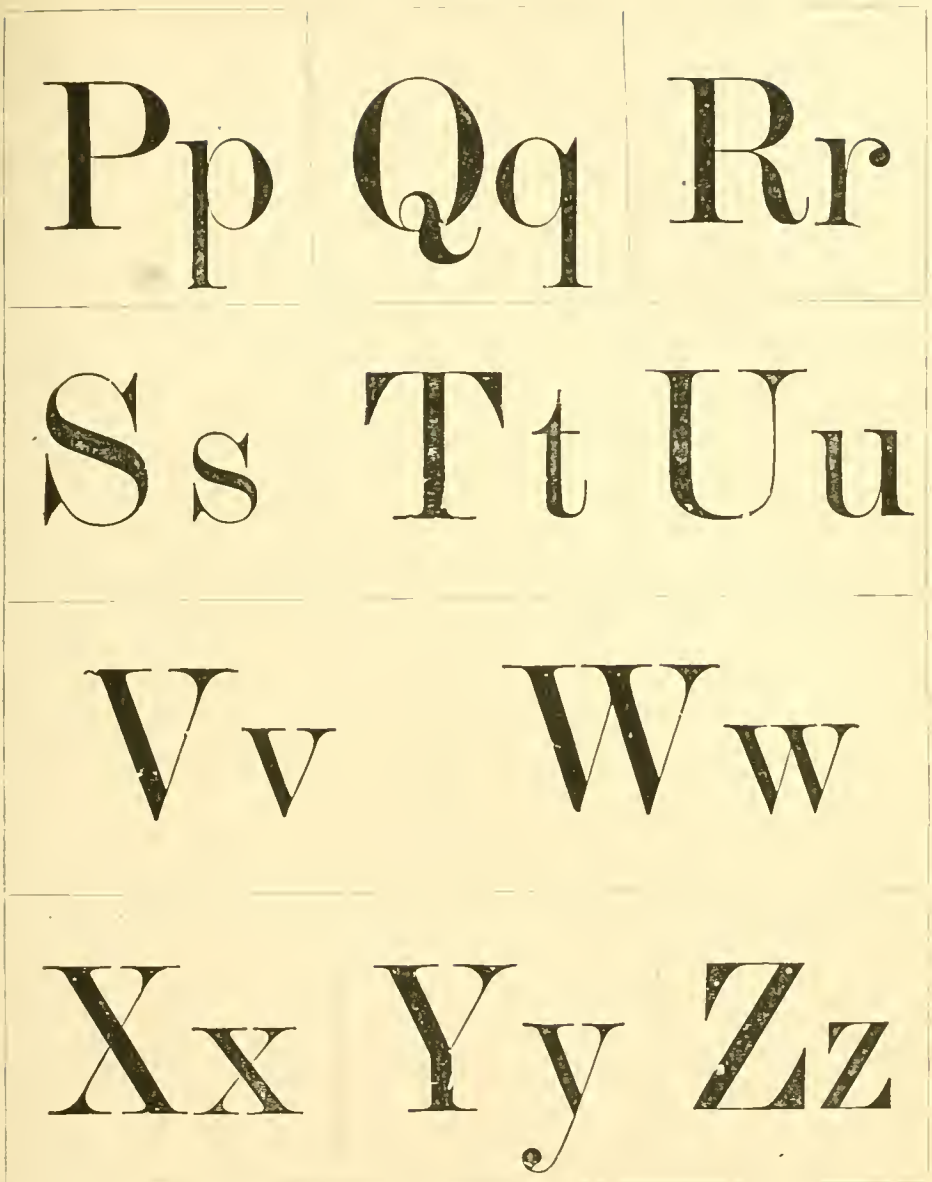
ud bud	ug jug	ut nut	un gun
ud mud	ug mug	ut hut	un bun
ud sud	ug rug	ut but	un fun



saw	web	can	pip	bat
law	jeb	pan	lip	rab
paw	neb	ran	tip	rag

When Harry had learned all these little words so well that he could point them out and pronounce them wherever he saw them, his mamma gave him some little sentences to read, with a pretty picture above each. I will tell you about this next time.

Aa Bb Cc
Dd Ee Ff
Gg Hh Ii
Jj Kk Ll
Mm Nn Oo



VOWELS.

A E I O U

CONSONANTS.

B C D F G H J K L M N P Q
R S T V W X Y Z

NATURAL HISTORY PAGES.

(*FOR PICTURES, SEE OPPOSITE.*)

Antelope.—A beautiful little animal, that lives principally in Africa. It can run very fast, faster than a horse. Its skin is covered with a nice soft fur. There are many kinds of Antelopes.

Bison.—The Bison, or American Buffalo, is a very strong and powerful animal. It is found in great numbers on the wide grassy plains of North America, called prairies. Its flesh is very good to eat.

Camel.—The Camel is a native of the sandy deserts of Asia and Africa, and it is well-formed for living in these arid wastes. Its feet are large, and very soft, so that it can tread easily on the sand, and it can go for many days without water.

Dog.—There are many kinds of Dogs, and they are to be found in every part of the world. Everywhere the Dog is the same attached, faithful animal to his master.

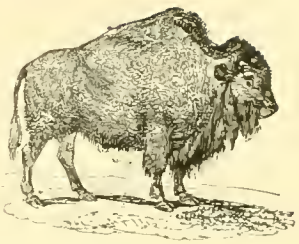
Elk.—The Elk, or Moose-Deer, is the largest of the Deer family. It inhabits the north-east of America, and is there found in great numbers.

Fox.—The Fox is a very cunning animal, and is fond of robbing poultry yards for food. He is found in almost every part of the world. In very cold countries its fur is white, in England it is of a reddish brown colour. Its tail is large and bushy, and is called "the brush."

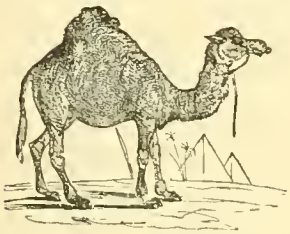
Gazelle.—One of the most beautiful of all animals, found chiefly in Arabia and Syria. A large number live together in a troop, and when pursued by the hunter, run away with wonderful swiftness.

Horse.—The Horse has been called the most noble and the most useful of all quadrupeds, that is, of all animals which have four legs. It can run quickly and draw heavy loads, yet though he is so strong he is very tame.

A for AN-TE-LOPE.

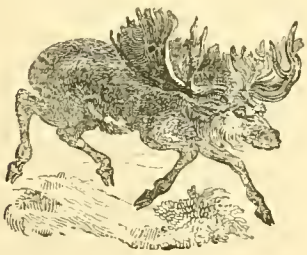


B for BI-SON.



C for CAM-EL.

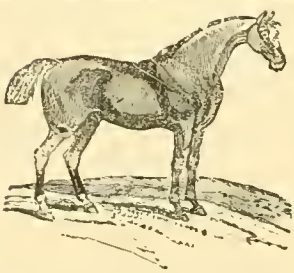
D for DOG.



E for ELK.

F for FOX.

G for GA-ZELLE.



H for HORSE.

Ibis.—The sacred bird of the ancient Egyptians, who used to worship it instead of the true God. It is common throughout Africa. Its head and neck are bare and the body white, while the long quills of the wings are tipped with black.

Jaguar.—The Jaguar has a beautifully-marked yellow skin. It is very strong, and can kill sheep, goats, and even oxen. Its great claws enable it to climb trees easily, which it does in pursuit of monkeys, which it likes to eat. It inhabits the hottest parts of America.

Kingfisher.—This is the most brilliantly coloured of our birds, its feathers being tinted with bright blue, orange, and green. It is found in the neighbourhood of streams, where it perches near the water, waiting for its opportunity to seize the fish, upon which it feeds.

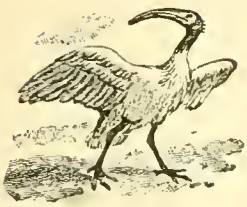
Lion.—The Lion has been called "the king of beasts," because of his great strength, his mighty voice, and his great powers of destruction. When he roars, the forest trembles and the animals hide their heads.

Monkey.—Monkeys live in those large forests which are to be found in warm countries, and there they lead a merry life, jumping and swinging from bough to bough in the pleasant sunshine, searching for birds' eggs or fruit.

Nightingale.—A Nightingale sings more sweetly than any other bird. It has been called "the queen of song." In the still summer evening, when all other birds are quiet, it delights to pour forth its sweet melody.

Otter.—An animal that lives by rivers, and feeds almost entirely on fish. It is not very common now in this country, but is found in America and also in India. It is a capital swimmer, and its fur keeps it from getting wet.

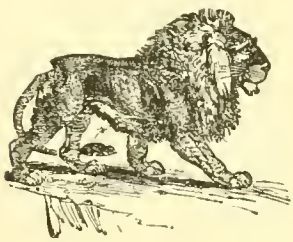
Panther.—A very savage and cruel animal, found in the woods of Africa and in the south of Asia. It is very handsome, and the markings on its back and sides present a very striking appearance.



I for I-BIS.

J for JAG-U-AR.

K for KING-FISH-ER.

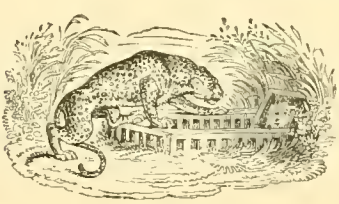


L for LI-ON.

M for MON-KEY.

N for NIGHT-IN-GALE

O for OT-TER.



P for PAN-THER.

Quail.—This bird only visits us in summer. It comes in May, and flies away in October to Africa, where it lives during the winter. Its flesh is considered a great delicacy.

Reindeer.—The Reindeer is found in the most northerly parts of Europe, where it is as useful to the inhabitants of those cold regions as the horse, cow, and sheep are to us. It will draw a sledge over the snow with amazing swiftness, and will travel with ease ninety miles a day.

Squirrel.—Such a pretty, bright little fellow, hopping about the woods or running up and down trees. It has very sharp little teeth and a long bushy tail. It lives on nuts and acorns, and sometimes on the bark of young trees.

Tiger.—The Tiger is only found in Asia. It is not so large as a Lion, but it is even more cruel and fierce. Its skin is of a reddish yellow colour, very handsomely marked with bands of black. It kills and eats men and all kinds of animals.

Unicorn.—A fabulous animal something like a horse, with a single horn—hence the name, which means one-horn—issuing from the middle of its forehead. It has often been described and spoken of by writers in ancient times, but none appear to have ever seen one. It is now generally believed that it never existed.

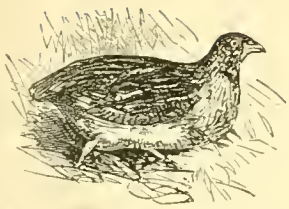
Vulture.—A very large and greedy bird that feeds on the bodies of dead animals. Its wings are very powerful.

Walrus.—This strange-looking and clumsy animal is sometimes called the Sea-horse and sometimes the Morse. It lives in the very cold regions, where there is always ice and snow.

Xiphias (Sword Fish).—A large Fish, usually 20 feet long, remarkable for the curious prolongation of its upper jaw, which is like a sword. It is found in the Mediterranean Sea.

Yellow Hammer.—The Yellow Hammer, or the Yellow Bunting, is a very pretty and well-known little bird. It lays five small eggs, which are prettily marked.

Zebra.—This beautiful creature is something like a graceful horse in appearance, but its body is marked with dark stripes. It has been tamed so that it would draw a carriage, but it does not do this so well as a horse.



Q for QUAIL.

R for REIN-DEER.

S for SQUIR-REL.

T for TI-GER.

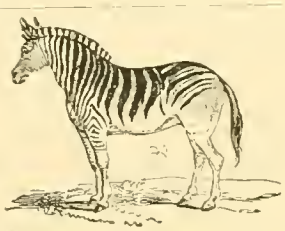
U for U-NI-CORN.

V for VUL-TURE.

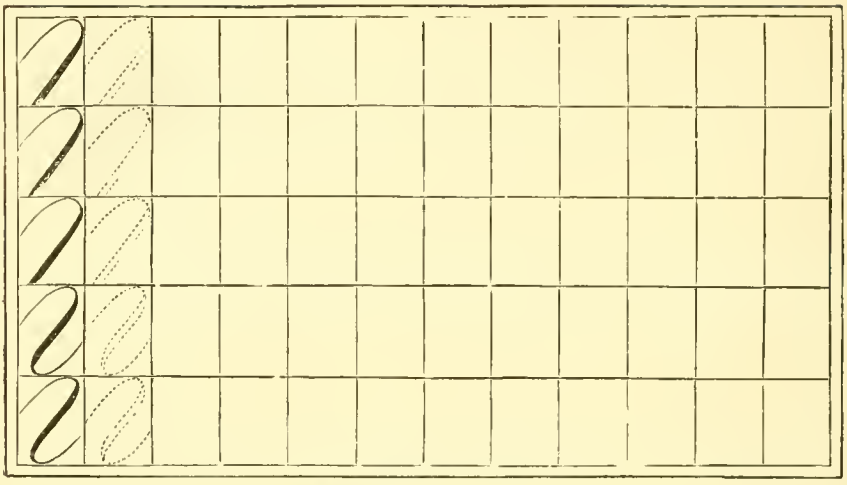
W for WAL-RUS.

X for XI-PHI-AS, OR SWORD-FISH.

Y for YEL-LOW HAM-MER.



Z for ZE-BRA.



AMY'S WRITING SLATE.

WRITING MADE EASY.

No. II.

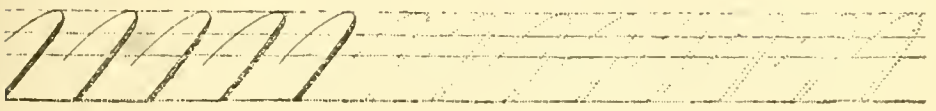
CURVES, OR "POT-HOOKS."

A LITTLE WRITING LESSON.

WHEN Amy was able to make upward and downward strokes with a certain amount of ease, her mamma showed her how to make curves, or pot-hooks.

Squares were ruled on the slate, as before, and letters made within them, as shown by the picture at the top of this page, only the slate was much larger than the picture, and there were many more lines devoted to each kind of curve. First, mamma guided Amy's hand over some of the dotted letters, and then left her little daughter to make

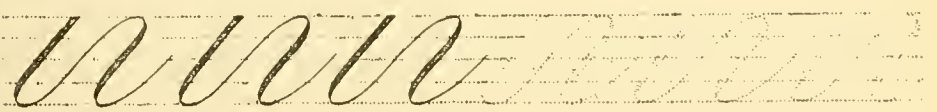
some by herself within the square. Then some lines were ruled on paper, and letters formed on them, without the squares, like this—



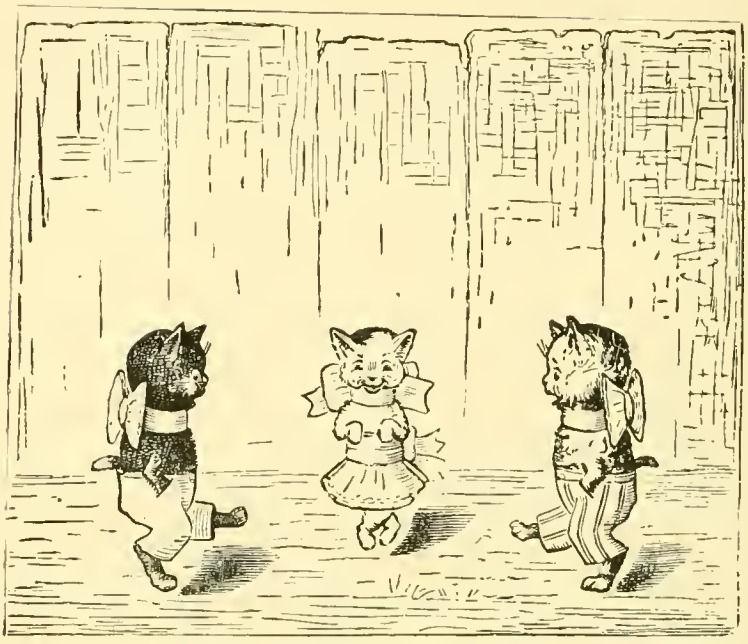
And when Amy had made a few lines of "pot-hooks," mamma ruled some more lines and made some curves like these—

and then, for a change, some like these—

Amy did not think that making these strokes and curves was a very pleasant occupation, and she wished to write letters at once; but her mamma very wisely kept her steadily at it for about ten minutes every day, varying the lesson now and then with lively talk, until, after a few weeks, Amy could quite easily make strokes and curves together like these—



Then mamma thought Amy might try to make round O's and A's; and in the next chapter I will tell you how she succeeded.



How many Pussy-cats are here?
One, Two, Three Pussy-cats, dancing.

PICTORIAL ARITHMETIC.

CHAPTER II.

HOW TO WORK ADDITION SUMS—(*continued*).

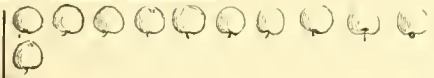
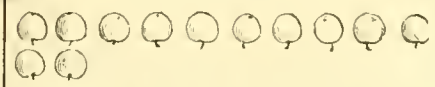
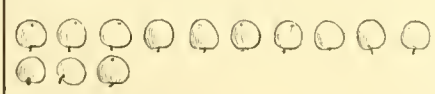
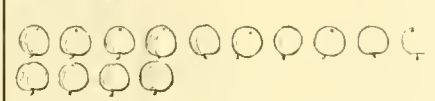
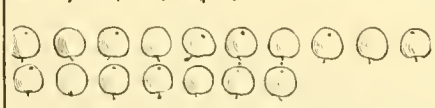
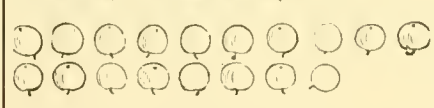
TRYING TO DO A LITTLE SUM.

LAST time I told you that Arithmetic was "all counting," and we worked a few little addition sums. I hope you have not forgotten that *Addition* teaches us to add things together, and tells us how many they make, thus—

○, and ○, and ○, and ○, make ○○○○ (four).

only instead of writing the word four we put down the figure thus, 4.

You remember that last time I told you the numbers up to ten; here are the next numbers *above* ten—

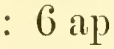
XI.		11 Eleven apples.
XII.		12 Twelve apples.
XIII.		13 Thirteen apples.
XIV.		14 Fourteen apples.
XV.		15 Fifteen apples.
XVI.		16 Sixteen apples.
XVII.		17 Seventeen apples.
XVIII.		18 Eighteen apples.
XIX.		19 Nineteen apples.
XX.		20 Twenty apples.

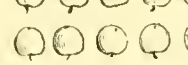
You see it is much easier to write down 20 when we wish to say twenty, than it is to draw all those little pictures of apples.

Now we will try a few sums that are a little more difficult. Suppose that there stands upon the table a basket of apples, and you take out six,

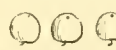
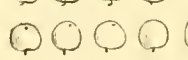
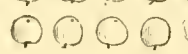
your sister takes out ten, your brother twelve, and I get fourteen, how many have we all together? Let us see—

6
10
12
14

Now, to add this up, begin with the 4, and count up to the top like this—4 and 2 make 6 (that is, 4 apples and 2 apples make 6 apples ); the 0 stands for nothing; so we go on: 6 apples and 6 apples make 12 apples. Then the answer to that first column is 12. Put it down in this way—

6
10 
12
14
2

But there is only a 2 there, you will say. Yes, that is quite right, because you must add the 1 on to the next column. This second column without the 1 comes to 3, but with the 1 it comes to 4—

6 
10 
12
14 
42

The answer therefore to that sum is 42, and you

know that we have taken out 42 apples from that basket.

Whenever you find, after adding up a column, that the answer comes to more than 9, you must put down the last figure, and add it on to the next column. So, if your answer is 16, you would put down the 6 and carry on the 1; if your answer was 20, you would put down the 0 and carry on the 2; if 24 you would put down the 4 and carry on the 2. Remember the *second* figure must be put down under the column you have been adding, and the *first* figure must be carried on and added up with the next column. When, however, you get to the last column of all you must put down both figures, because as there are no more columns to add the *carrying* figures on to, some of your figures would be lost, and you would not get the proper answer to your sum. Let us do rather a long addition sum, which will show you just what I mean—

You see the answer to the first column is 23, so we put down the 3 and carry on the 2. Then the answer to the next column is 24, so down goes the 4, and the 2 is added to the third and last column. This last column comes to 30, and as it is the last column we put both the 3 and the 0 down, thus—30.

4	7	6
9	3	8
2	7	4
6	1	3
7	4	2
30	4	3

I wonder if you will remember all this when, by and by, you come to do long difficult sums?

KING ALFRED AND THE CAKES.

TALES OF OTHER TIMES;

OR,

THE HISTORY OF ENGLAND IN EASY LESSONS.

III.—THE DANES AND SAXONS; THE STORY OF GOOD KING ALFRED.

SAINT AUGUSTINE PREACHING.

WHEN the Romans went away, the Britons were attacked by some savage people called the Picts and Scots, who lived in the northern parts of the island. They were also invaded by pirates from Denmark and Germany, called Danes and Saxons. Then came a good man called Saint Augustine, who taught the people to know the true God and to believe in the Lord Jesus Christ.

The country was now divided into seven kingdoms, called "The Saxon Heptarchy," but at last Egbert became king of the whole. He was called Egbert, which means "bright eye," because his eyes were so bright and beautiful. In his reign the Danes were again very troublesome. They used to descend on the southern and eastern shores and ravage the country. But the Britons fought bravely against them.

Alfred was the wisest and best of the kings in those days, and he did so much good for England that he has been called "Alfred the Great" and "Good King Alfred." He loved study and learning, and when he was a little boy he won a very valuable prize, which his mother Osberga had promised to that one of her sons who should first learn to read. The prize was a beautifully-bound and richly-coloured book of Saxon poems.

After a time Guthrum, the leader of the Danes, marched in the night upon Chippenham, where Alfred was then living, and which was then simply a royal villa on the Avon. The king was forced to flee in disguise, and his adherents were all scattered. Alfred sought refuge in the small hut of a man who kept pigs. The wife of his humble host, not knowing he was the king, set him to watch cakes which were set to bake by a wood fire, for they had no ovens in those days. Alfred was to turn them now and again, so that they should not burn.

When she went out, her last words were, "Now, mind you do not forget, and let the cakes burn." But Alfred was so absorbed in thinking over his misfortunes, and the best way of remedying them, that he forgot the cakes, and they were burned and spoiled. So when the good wife returned she scolded him soundly, and, some records say, boxed his ears. "Go away!" she cried. "You are a lazy, good-for-nothing fellow, to let my cakes burn! Go away! I cannot keep idle people."

Alfred did not tell her he was the king, but went away quietly to a marshy island, formed by a junction of the rivers Parret and Tone, and there he hid for some months. Then he disguised himself as a harper, and visited the Danish camp. Won by his beautiful playing on the harp, the Danes feasted him, and he heard all their plans. Then, stealing from the camp, he gathered his followers together, and fought

a great battle with the Danes, in which he was victorious. So completely defeated were they that they did not trouble the land again for some time.

Alfred founded the University of Oxford, and made a law commanding the nobles to have their children educated. He also made many other wise laws, and established trial by jury. He divided his day into three parts—one devoted to prayer and study, another to affairs of state, and the third to sleep and meals. There being no clocks in those days, he measured time by candles, which burnt one inch in twenty minutes. After a long and prosperous reign, he died at Farringdon, in Berkshire, A.D. 901.

IV.—THE STORY OF CANUTE AND HIS COURTIERS.

After the death of Alfred the Great several kings succeeded, who were not all of them so good as Alfred had been. The affairs of the country were now partly managed by the Great Council, or Wit-en-ag-e-mot. This is rather a hard word, but you must endeavour to remember it, as this Council was the forerunner of our great Parliament. Sometimes it is called Witan, for short. The word means "the assembly of the wise." They advised the king on matters of state, judged state criminals, and superintended the courts of justice. They also appointed new kings.

During the reign of Edgar, surnamed "the Peaceable," because during his life no foe disturbed the land (which was a most unusual occurrence in those days), nearly all the wolves in the country were killed, for he allowed the Welsh to pay their tribute, or taxes, in wolves' heads instead of money. So a great number of these wild animals were destroyed, and the forests were almost entirely cleared of them.

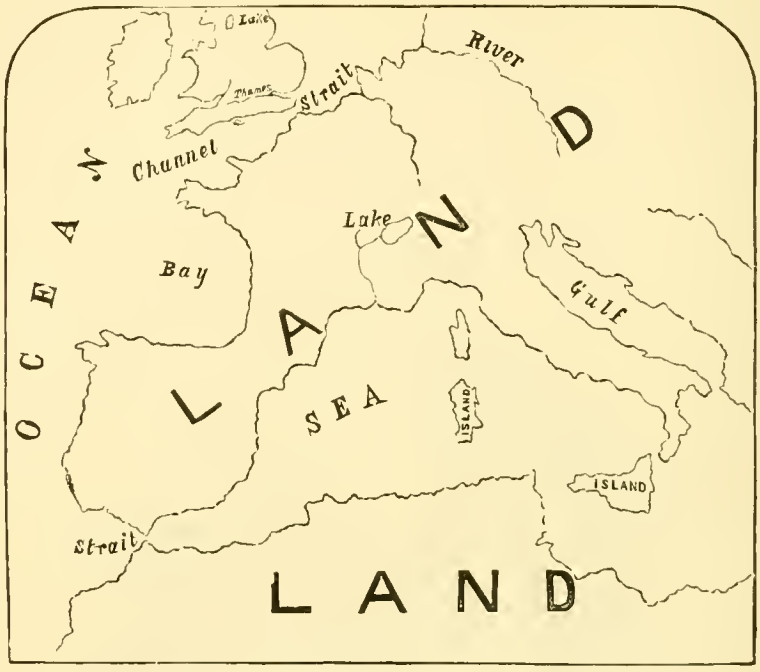
A few years after Edgar's death the Danes came again, and Canute, a Danish king, became sovereign of England. He was called Canute the Great because, on the whole, he ruled wisely and well, and exhibited a great regard for religion and law and justice. For instance, on one occasion when his courtiers had flattered him very much, and called him the greatest king in the world, and said that even the sea would obey him, he calmly ordered a chair to be brought and placed on the shore at Southampton, where he was then

residing. Seating himself in the chair, he commanded the waves to return. But the tide was flowing in, and although he sternly bade it retire, it came on resistless. Then when the water had wetted his feet and encircled his chair, he sternly reproved his courtiers, and told them that the greatest earthly kings were indeed weak when compared to God, the great King of the whole universe.

KING CANUTE.

Now that you have read, I hope, several times over, these first four stories of English history, let me ask you a few questions about them :—

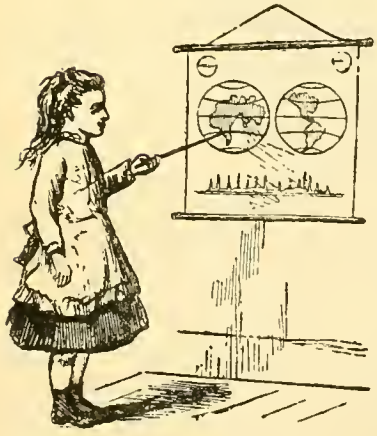
What were the people called who lived in England a long, long time ago?
How did they live?
How did they dress?
What were their boats called?
What did they worship?
What were their priests called?
Tell me something about them.
Who first attacked them?
Where did they land?
What good did they do to the country?
Tell me some of the towns they founded.
Who came after the Romans?
Who was the best of the kings in those days?
Tell me something about him.
Who founded the University of Oxford?
Tell me something about Canute.



MAP, SHOWING PRINCIPAL DIVISIONS OF WATER.

SIMPLE LESSONS IN GEOGRAPHY.

II.—THE PRINCIPAL DIVISIONS OF WATER.



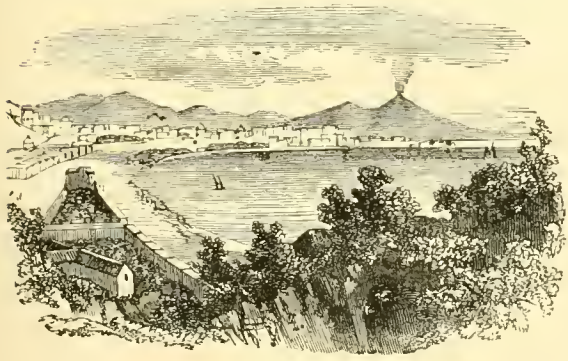
POINTING OUT A CONTINENT ON THE MAP.

LAST time I told you about the principal divisions of land. Now I will tell you about the principal divisions of water. There are two kinds of water—one is salt or sea water, and the other is fresh, such as we drink.

The very largest piece of sea water is called an Ocean. It extends for hundreds and hundreds of miles. There are five Oceans—the Atlantic, the Pacific, the Indian, the Arctic, and the Antarctic, or Southern Ocean. When the water extends into the land it is called a Bay, and when the water extends into the land very far it is known as a Gulf.

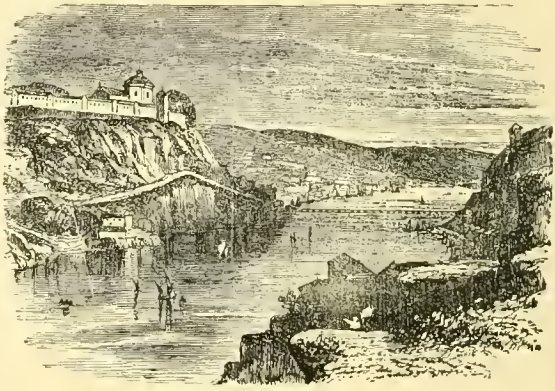
I must tell you of a Channel, too, and I must tell you of a Strait. They are very different from gulfs or bays, because there is a way out of them without turning round. For they are merely passages of sea; a channel being a wide passage between two countries, and a strait being a narrow passage between two countries, by which a ship can go in at one end, and can sail along, and come out again at the other. But if a ship goes into a bay, it is like going into a very large wide room with only one door to it; and if a ship goes into a gulf, it is like going into a very long and narrow room with only one door to it. The ships must come out again the same way they went in. But if ships go into a channel, it is like going into a large room with a door on either side, so that we can go through the room, in at one door and out at another; and a strait is the same kind of thing, only it is smaller. Look on the big map, and you will see channels and straits.

Well, but all this water is sea water, so that it is salt. There is other water upon the earth, the water that is fresh and sweet, and that we use in towns and manufactories, and that we drink. This water is found in the land, not outside of it, and the largest spread, or expanse, of it is called a lake. Some of the lakes are so big, that even if you went on them in a steamer, you would be a long time before you steamed from one end to the other. Other lakes are quite small; little tiny sheets of water. Many lie right in the middle of very high hills, and are so beautiful that people come from very long distances just to look at them. In Scotland, the word for a lake is Loch. In Ireland, it is Lough. The largest lakes are in America, or in the Western Continent. One there is so large it is called Lake Superior; for superior is a word that means better than all the rest.



A BAY.

Another portion of fresh water found on the land, and not outside of it, is called a River. I think you know what a river is. It is a long, long, long stream of water, quite smooth and pleasant, that will take you from one inland town to another. There are thousands of rivers on the earth, some at the north, some at the south, some at the east, some at the west.



A RIVER.

Many rivers begin up amongst the hills and the mountains, and, up there, are only tiny streams; and by and by two of these tiny streams will meet and go on together, and will soon meet another, and another, and another, till by the time they have all been running for miles on the flat part of the land, they all make one great big river, which runs into the sea. In America there are some immense rivers, real giants of rivers. One of them, the Mississippi, is more than 4,000 miles long; and one of the rivers that meets it up in the land, the Missouri, is as long as itself. In the south part of America there is a river 5,000 miles long. It is the Amazon, called the Queen of Rivers, because it is the longest in all the world.

Now that I have told you about the principal divisions of land and water, you will be able to answer these few easy questions. Try.

What does Geography teach us?
What is the shape of the Earth?
Into what is the surface of the Earth divided?
What is the name of the largest piece of Land?
Point out a Continent on the Map.
How many Continents are there? Point them out.
What is a Peninsula? an Island? an Isthmus? a Cape? Point out one of each of these.
What is a Coast, a Mountain, a Valley, a Volcano?
Do Mountains ever have snow on the summits? Why is this? Does the snow ever slip down?
What is the largest division of Water?
How many Oceans are there? Point them out.
What is a Sea? a Channel? a Gulf? a Strait? a River? a Lake? Point out one of each of these.
What is the name of the longest River in the World?

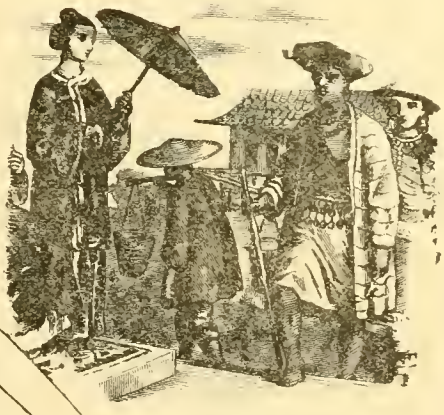
of islands.

is almost an
almost sur-

neck of land
gether.

xtending into

COTTON PLANT
ASIA AND AMERICA



CHINESE
(INHABITANTS OF ASIA)

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OCK & Co. SALISBURY SQUARE, E.C.

PUZZLE MAP OF THE WORLD FOR TEACHING THE ELEMENTS OF GEOGRAPHY.

PRESENTED WITH PART II. OF "THE CHILD'S INSTRUCTOR."

The **Earth** on which we live is round, like an immense orange.

This large map represents the two halves of the world, with the principal divisions of land and water in each. A map is a representation of the whole or part of the surface of the Earth on a flat surface.

The **equator** is an imaginary line round the centre of the earth, at equal distance from the poles. The **poles** are the points at the top and at the bottom of the Earth: or, to speak more correctly, at the north and south of the Earth.

The **land** is divided into continents, islands, peninsulas, isthmuses, and capes. There are also mountains, hills, valleys, and plains.

The **water** is divided into oceans, seas, gulfs, straits, bays, lakes, and rivers.

A **continent** is the largest division of land. There are five continents—Europe, Asia, Africa, America, and Australia. The latter, although it is really an immense island, is so large that it is frequently spoken of as a continent. (The teacher should point out these and all subsequent divisions to the children.)

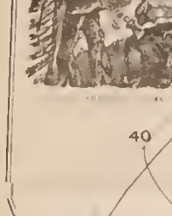
An **island** is a small portion of land entirely surrounded by water.

An **archipelago** is a group of islands.

A **peninsula** (which means almost an island) is a portion of land almost surrounded by water.

An **isthmus** is a narrow neck of land joining two larger portions together.

A **cape** is a point of land extending into the sea.



A **mountain** is a great elevation of land.

A **hill** is an elevation of land, but not so high as a mountain.

A **mountain chain** consists of many mountains joined together.

A **valley** is the low land between mountains or hills.

A **plain** is a level tract of land.

An **ocean** is the largest division of water—*i.e.*, the water surrounding the continents.

There are five great oceans—The Atlantic, the Pacific, the Arctic, the Antarctic, and the Indian.

A **sea** is a large portion of salt water, but not so large as the ocean.

A **gulf** is a portion of sea water running deep into the land.

A **bay** is a portion of sea water running only a little way into the land.

A **strait** is a narrow passage of sea water joining two larger portions.

A **lake** is a large portion of water—usually fresh water, not salt like sea water—nearly or entirely surrounded by land. A small portion of water surrounded by land is a pond.

A **river** is a stream of water flowing to the sea.

HOW TO USE THE MAP

This most interesting Map may be made into a very amusing and instructive Puzzle for Children in either of the following ways. (1) Paste the two halves on a sheet of cardboard, back to back,—and cut into pieces along the lines of latitude and longitude—or longitude only, as preferred. In doing this, care must be taken that the lines correspond exactly, to which purpose points are placed at the top and bottom of each half, through which a needle can be run, to secure accuracy when pasting down the second half on the reverse of the card. (2) An easier method is to paste the two halves—just as they are—on a piece of cardboard, and cut them into sections along the line of latitude—i.e., from left to right. The pictures placed around are to be also mounted on card, and when the map is put together, they may be put on the continents to which they belong.

The Map will also be found very useful, without being mounted, to point out the principal divisions of land and water, and the places inhabited by the various animals in connection with the Geography Lesson and Natural History pages in the Instructor.

The Four Clocks show the time at various quarters of the Globe when it is mid-day at London.

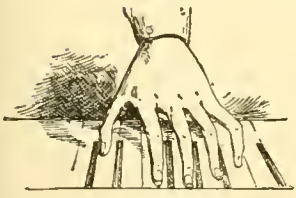
LONDON: WARD, LOCK & CO., SALISBURY SQUARE, E.C.

A CHILDREN'S MUSICAL PARTY.

MUSIC AND SINGING.

CHAPTER II.

MORE ABOUT THE SINGING BIRDS.



SOUNDING THE NOTES.

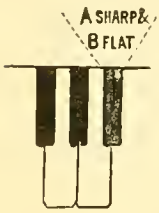
LAST time we learned about the little white birds in mamma's piano, which we called the cage. Now I shall tell you about the black birds. Each one has two names. You will remember that we called the groups of three's *blackbirds*, and the groups of two's *crows*. Let us begin with the first of the three blackbirds. This first blackbird comes between F and G, so sometimes it is called F sharp and sometimes G flat, just according to the song the birds are singing. You will understand this better by and by, when you have learned to know the different voices of the birds.

At present you must try to remember the two

names belonging to each blackbird, and then in time you will know by which name to call them. So the first of these three blackbirds is called F sharp and G flat. The second blackbird lies between G and A, and is called G sharp and A flat. The third blackbird lies between A and B, and is called A sharp and B flat. This sounds a little difficult to you, perhaps, but I think if you touch each little blackbird in the cage as you give it its two names, and repeat these two names a great many times, you will soon be able to remember them. I daresay you have noticed by this time that each black bird takes its two names from the two white birds between which it is placed. The white bird to the left of it gives it the name of *sharp*, and the white bird to the right of it gives it its name of *flat;* so that in the case of the third blackbird, which lies between A and B, it is called A sharp because it lies to the right of the white bird A, and it is called B flat because it lies to the left of the white bird B. Now we must go on learning the names of the other two black birds, which we called crows. The first of these two crows lies between the white birds C and D, so its names must be C sharp and D flat, must they not? The second of these two crows lies between D and E, so its names, you see, are D sharp and E flat. Now, once more, let us go right through them in their proper order,

No 7.

No. 8.

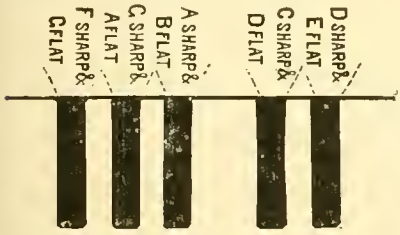


No. 9.

No. 10.

beginning at the first of the three blackbirds which are placed together in a group. The first is F sharp and G flat. The second is G sharp and A flat. The third is A sharp and B flat. Now for the two crows. The first is C sharp and D flat. The second is D sharp and E flat. Remember that you must put your finger upon each little blackbird as you repeat its two names, and for proof that you are right you can look at the little pictures given to you here.

No. 11.



No. 12.

Here they are once more, all in a row. Every white bird has thus, you see, a sharp and a flat belonging to it. But perhaps you will say there are seven white birds and only five black birds, so how do you account for that?

The sharp and flat of each white bird are those two black birds which lie one on the left and one to the right of it.

Then how about the four white birds which are not separated by black birds, which are B and C, and E and F?

The white bird B has a black bird to the left of it; this black bird is, of course, called B flat.

Then where is B sharp, you will ask, for the white B has no black bird to the right of it. The white bird C, as it lies to the right of B, has to act as its sharp. So you see the white C has two names, like the black birds. Its names are

C natural (for all the white birds are called naturals), and it is called B sharp too.

Now for the white bird C. This bird has a black bird to the right of it, which is of course called C sharp, and as it has no black bird to the left of it to act as its flat, the white bird B has to take the place of the missing black bird, and it is called C flat. So the white note B has two names, just the same as C has. These are, B natural and C flat.

D, as I have already told you, has a black bird on each side of it, so of course the one to the left of it is its flat, and the one to the right of it is its sharp.

E natural has a black-bird to the left of it which is called E flat, and it has to get its sharp from the white bird F natural, which is also called E sharp. Then the white bird F is called F natural and E sharp. Then where is F's flat, you will ask. This, of course, is got from the white bird, which is called F flat as well as E natural. Now, once more, we'll go over these four white birds who have two names, and which are B, C, E and F. B is B natural and C flat. C is C natural and B sharp. E is E natural and F flat. F is F natural and E sharp.

Now, I hope you will soon be able to remember all these sharps and flats; and if you do, I shall soon be able to teach you to play a little tune. Will that not be nice?

Next time I will tell you about the handsome cage in which these sweet-voiced little birds live.

THE DEATH OF ABEL.

SCRIPTURE STORIES.

CHAPTER II.

CAIN AND ABEL.

WHEN Adam and Eve were sent away from the beautiful garden of Eden, in consequence of their disobedience, they were obliged to go into a country which was much more wild and desolate, and Adam had to till the ground, so that corn and fruit would grow for their food, and he had to work very hard indeed.

After a time a little son was born to Adam and Eve, and they called his name Cain; and by and by came another little son, and him they called Abel.

The two brothers grew up together, and, when they were young, no doubt loved one another very much indeed. When they were both men they chose different occupations: Cain was a tiller of the ground, like his father Adam, but Abel was a

shepherd, and used to watch over the flocks and herds of sheep and goats. One day Cain offered a sacrifice to the Lord of the fruits of the earth, but he did not pray to God, nor offer it in the right spirit, so God turned away from him and would not accept his sacrifice. Then Abel took the best and fattest lamb in his flock, and, humbly praying to God, offered up *his* sacrifice, and God was pleased with the offering and accepted it.

But Cain became very jealous and angry with Abel, and cruel, envious thoughts rose up in his mind.

He should have tried to overcome these evil thoughts, but he did not. And God said to Cain—for in those days He used to speak to men by word of mouth—Why are you angry, Cain? If you do well, your offering will be accepted, as your brother's was.

But Cain would not listen to what God said, and one day the two brothers were in the field together—perhaps talking about the sacrifices—and Cain's envious ill-temper so completely mastered him, that, forgetting all about the time when they were boys and had played with and loved one another, he suddenly struck his brother Abel on the head so that he killed him.

God was very angry with Cain for his cruel wickedness in killing his brother, and sent him far away to be a wanderer on the earth, and set a mark upon his face, so that every man should know that he was a murderer, and should hate him for it.

Just think what envy and bad temper will do!

If anyone had told Cain, when he was quite a little boy, that one day he would kill the dear brother whom he loved, he would have denied it at once, and been shocked at the very thought. Sometimes think, when *you* are tempted to strike your brother or sister in anger, that if you allow your ill-temper to get bigger and bigger, as you grow taller and older, it will one day master you so completely, that, like the wicked Cain, in a moment of great anger you might kill one of your fellow-men! It is not easy always to be good-tempered, I know, but surely it is better, when you are feeling angry and jealous, to shut up your mouth quite closely, so that the angry words cannot be uttered, and to hold your hands close to your sides, so as to refrain from striking another. The oftener you allow your anger to get the better of you, the harder you will find it to restrain yourself; but the oftener that you conquer it now, when you are young, the easier it will be to conquer it altogether. Now, I hope you will never forget the story of Cain and Abel, and what a dreadful thing it is to give way to naughty tempers, and how displeased the great God is with those people who do so.

QUESTIONS ON CHAPTERS I. AND II.

Who made this beautiful world in which we live?
What was the name of the first man?
Who created him?
What was the name of the first woman?
Who created her?
Where did they live?
Was this a beautiful and happy place?
How long did they continue happy?
(The answer to this question should be, Until they disobeyed God).
Why did they leave Eden?
What were the names of their two sons?
Why was Cain angry with Abel?
Who allowed his naughty temper to overcome him?
What sin did it cause him to commit?
What lesson do we learn from the story of Cain and Abel?

"ALLEZ VITE! ALLEZ VITE!"—"GO FASTER! GO FASTER!"

EASY LESSONS IN FRENCH.

II.—SECOND LESSON; LEÇON SECONDE.

THE NAMES OF A FEW TOYS.

A MERRY GAME—UN JEU JOYEUX.

COME here, my children. I want to tell you something about little French boys and girls; that is, about the little children who live in France, a country which, you know, is not so very far away from ours. They speak words that are quite different from the words you speak. If a little French boy came into your nursery to play with you, he would not say, "How do you do?" He would say, "*Comment vous portez-vous;*" and if you gave him your little horse to play with, he would not call it a horse; no, nor yet a gee-gee;

he would call it *un cheval.* "Ha!" he would cry out, "*un cheval! Un joli cheval! Un bon cheval!*" For *joli* means pretty, and *bon* means good; and he would be so glad.

His whip for the horse he would call *un fouet*, and the reins *les brides;* and when he said his alphabet he would pronounce the letters quite differently, as I told you last time.

If you had a rocking horse and he climbed on its back, he would cry, "*Allez vite! allez vite!*" which means, "Go faster! go faster!"

Then the little French boy would take your little wooden moo-cow and call it *une vache;* and he would call a dog *un chien;* and for a lamb he would say, *un agneau;* and for a box, *une boite;* and if his sister came, she would call a doll *une poupée.*

Now, will you try to remember these names? Here are the names of a few more things in French, in rhyme and with pictures, so that you may remember them.

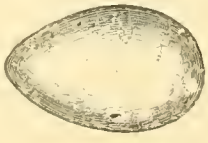
An Apple,
Un Pomme.

A Fly,
Une Mouche.

A Man,
Un Homme.

A Pie,
Un Pâté.

One Egg,
Un Œuf.



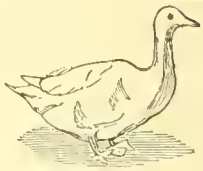
A Cat,
Un Chat.

One Ox,
Un Bœuf.

A Dish,
Un Plat.

Some Wool,
De La Laine.

A Goose,
Une Oie.



A Queen,
Une Reine.

A King,
Un Roi.

Now say these words very quickly:—Un, brun, aucun, chacun, quelqu'un; and, quicker still, un brun aucun chacun quelqu'un. And these:—Une, lune, dune, chacune, aucune, quelqu'une; and again, une lune dune chacune aucune quelqu'une. That will teach you how to pronounce *un* and *une*, which mean a, and an, and one. Here are three more rhymes which the little French boy might repeat:

Antoine, un homme,
A mangé une pomme.
Which means—
Anthony, a man,
Has eaten an apple.

Louis, un jour,
Demolit un tour.
Which means—
Louis, one day,
Demolished a tower.

Voici Dorothée; elle porte une poupée.
Here is Dorothea; she carries a doll.

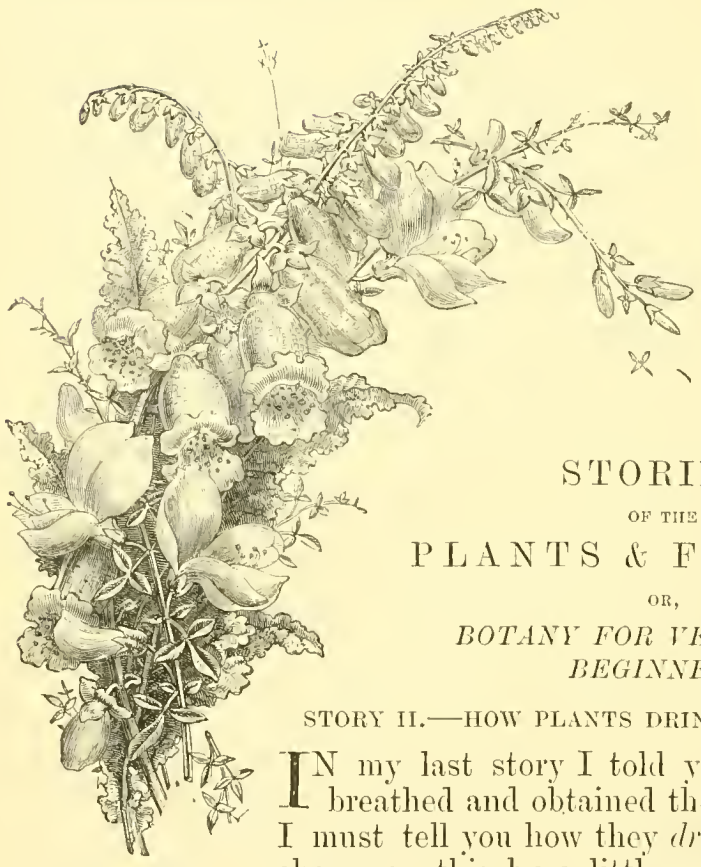
Now, I am afraid you are tired of hearing French words, so the little French boy shall go, and instead of saying "Good day," he would say "*Bon jour.*" Another time he shall come in to dine with you.

LANGUAGE PICTURE LESSONS.—No. 2.

English—A little Girl—A Cup—A Cat.
French—Une petite Fille—Une Tasse—Un Chat.
German—Ein kleines Mädchen—Eine Tasse—Eine Katze.
Latin—Parva Puella—Poculum—Feles.

English—A Cow and a Calf in a Meadow.
French—Une Vache et un Veau dans une Prairie.
German—Eines Kuh und ein Kalb in einer Wiese.
Latin—Vacca, Vitulus, Pratum.

(There is no article—a, an, or the,—in Latin.)



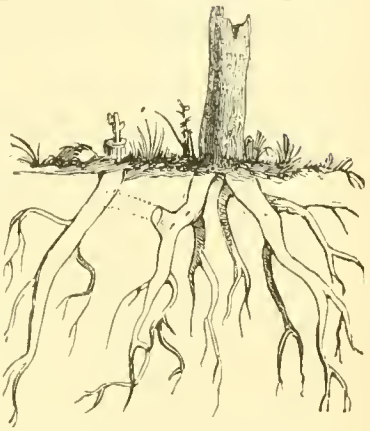
FOXGLOVES.

STORIES
OF THE
PLANTS & FLOWERS;
OR,
BOTANY FOR VERY YOUNG BEGINNERS.

STORY II.—HOW PLANTS DRINK AND SLEEP.

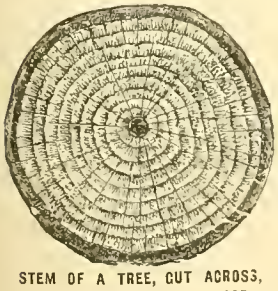
IN my last story I told you how plants breathed and obtained their food. Now I must tell you how they *drink*, and I will show you this by a little experiment. If you put a few drops of water into a saucer, and a piece of lump sugar is allowed to touch it, the water rises in the sugar, and has soon reached the top of it. Indeed, you may watch it rise if you darken the water slightly with ink. The water enters the pores of the sugar, and is drawn up just as melted tallow is drawn up the wick of a candle. The same kind of drawing-up process is at work in the roots of the trees, drawing water containing various substances out of the moist earth up into the various parts of the tree. There may also be other causes helping. Thus, there is much water evaporated from the surfaces of leaves; in other words, the little cells become partly dried up, consequently they draw a portion of the water away from neighbouring cells which are full, and this borrowing process may go on until the roots are reached, where, of course, the cells borrow their supply of liquid from

the moist ground. And so the liquid rises to all parts, carrying with it the various substances obtained from the ground.



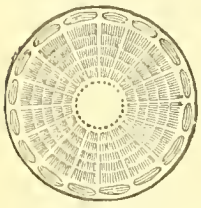
ROOT OF A TREE IN THE GROUND.

Now, just think for a moment of the difference between summer and winter. In summer the air is warm, and everything is bathed in sunshine; the trees are well supplied with leaves, and the natural process of wood-making is going on at full speed. In winter the ground is perhaps covered with snow; the sun rises late in the morning, and sinks in the west early in the evening; the hours of sunshine are few, and are made less by vapours or mists rising from the rivers and damp ground, and the trees are black and bare of leaves, so that in winter there can be little wood-making going on. In a few words, summer is the time for growing with plants, when they are laden with green leaves and have plenty of sunshine, while winter is a time when they are having a sort of rest or sleep, deriving their only nourishment from the ground. If we could cut the stem of a tree in two, then there ought to be, one would think, some difference, or some line of separation, seen between the growth of one year and another. So there is in some kinds of trees. The picture before us shows us one of them. It is nine years old. Upon having it cut in two, what do we find? Why, nine rings of wood, a ring for each year, and each ring of wood separated from the others by a dark portion representing the tree's winter sleep. In such a tree a layer of fresh wood is formed every year outside all the others, and there is also a layer of new bark made, and the old bark cracks and withers away. It is pretty plain, then, that one may tell the age of a tree of this kind by counting its rings; and the next time you see a tree that has been sawn in two, you may count its rings of wood if you want to know how old it is. These rings will tell something else too. If it should

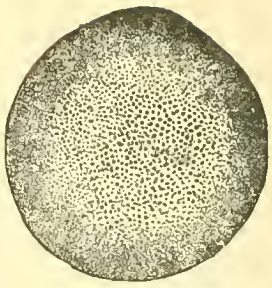


STEM OF A TREE, CUT ACROSS, SHOWING THE RINGS OF FOOD.

happen that this tree you are examining has passed through years when the winters were more than usually long, and the summers were gone nearly as soon as they had come, then you will find that the rings of wood which answer for these years will be thinner than the others, showing that the tree did not receive so much food in those years as it had been used to.



STEM, SHOWING FOUR YEARS OF FOOD.



SECTION OF EN-DO-GE-NOUS STEM.

The trees that increase in size by a yearly addition of wood outside all the other rings of wood, are called *ex-o-gens* by botanists.

EN-DO-GE-NOUS LEAF.

There are some trees which do not grow by adding layers of wood yearly to the outside. Each collection of new material is carried towards the middle of the stem. Such trees—and the palm is an example—grow from within; they are called *en-do-gens*. The peculiar appearance of the stem of an en-do-gen is seen when a cane is cut in two.

NET-VEINED LEAF.

If you take a leaf from the tree whose stem has the rings to show its years of growth, and if you examine this leaf, you will see that it is on a small stalk. In the middle of the leaf there is a continuation of this stalk, from which there are veins or branches in various directions, presenting quite a network. Now, if you examine the leaf of an en-do-gen in the same way, it will be found to be widely different, as there is no network of veins; they all lie in the same direction as a blade of grass. We have, therefore, no need to cut a tree in two to tell whether it is an ex-o-gen or an en-do-gen. An examination of its leaves will give us

this information. Thus we find that the linden, horse-chesnut, and oak have leaves which are of the network kind; therefore these trees are ex-o-gens; while a number of grasses have leaves with the veins all in the same direction or parallel, and we can say at once that they are en-do-gens.

LEAVES AND FLOWERS OF HORSE-CHESNUT.

Both the ex-o-gens and en-do-gens have flowers, but this we must leave for the next two lessons. We may finish this lesson by a few remarks on the curious subject of plant "sleep." You may watch them asleep, for some of the flowers of the field "sleep" every night. They close their petals when evening is coming, and do not open them again before daybreak, just as we close our eyes when we sleep, and open them again in the morning. The daisy, for example, opens its little white petals at sunrise and closes them at sunset. And from this fact, and its rough resemblance to an eye, it has been named the "day's-eye," a name which we have gradually shortened into daisy. Another wild flower, the dandelion, closes for the night at about five o'clock, and opens in the morning about seven.

LEAF OF LINDEN TREE.

SOMETHING ABOUT A FEW WILD FLOWERS.

(*SEE PICTURES ON OPPOSITE PAGE.*)

Sweet Violet.—One of the sweetest-smelling of our wild flowers. Found in spring on shady banks. The flowers are purple-coloured.

Anemone.—One of the earliest of our Spring flowers, and may be met with during March or April, in almost any wood. The colour of the flower is white, slightly tinged on the outside with purple.

Primrose.—Another of our early Spring flowers, found in secluded corners of our woods and on shady banks. The flowers are yellow.

Common Plaintain.—One of the commonest of our wild plants. It is found upon nearly every country roadside. The flowers are on a tall stalk, and the seeds when the flowers drop off are very good for cage-birds.

Red Poppy.—Found in corn-fields in the summer-time, when its scarlet petals present a very brilliant appearance.

Field Gentian.—A beautiful little blue flower, very common in some of our northern counties. It only grows to the height of a few inches.

Foxglove.—A tall and very handsome flower, found on woody banks, and on the sides of hills, in sandy soil. The flowers are somewhat bell-shaped, and are beautifully marked with purple blotches. It is a very poisonous plant.

Harebell.—A pretty little blue flower, found in summer-time on grassy knolls and in woods. It is somewhat different from the blue-bell, which grows at the top of a single stalk.

Bindweed.—This is the common name of the wild convolvulus. It is found in hedgerows, where it twines around the branches of the hazels or quickset. The flowers always close up when the sun goes down.

A FEW OF OUR FAMILIAR WILD FLOWERS.

(*FOR DESCRIPTION, SEE OPPOSITE PAGE.*)

SWEET VI-O-LET.

A-NEM-O-NE.

PRIM-ROSE.

COM-MON PLAN-TAIN.

RED POP-PY.

FIELD GEN-TIAN.

FOX-GLOVE.

HARE-BELL.

BIND-WEED.

NEGROES PICKING COTTON.

CHATS ABOUT COMMON THINGS.

II.—ABOUT COTTON.

COTTON PLANT.

MANY of our clothes are made from the substance called cotton; and in warm countries, such as India, China, the Southern States of America, and the hot regions of Africa, people are wholly clothed in cotton garments; so you may well suppose that cotton is a very useful substance indeed, and that the quantity used every year is very, *very* great.

Cotton is the hairy covering of the seeds of a tree or shrub. When the seed of the cotton-plant becomes ripe the pod bursts open, and the white fluffy cotton bulges out; so that a cotton plantation just before the harvest is gathered, looks as if the plants were covered with flakes of snow. In the picture at the top of this page you see a cotton plantation, with the

ripe white pods, and some negroes picking the pods and putting the fluffy cotton into baskets.

Some cotton has a yellowish tinge, and this is considered more valuable than the kind that is pure white.

The greatest amount of cotton is grown in the Southern States of North America, on the banks of a great river called the Mississippi. A large quantity is also grown in India.

The cotton-plants are cultivated in rows; and they are carefully tended until the pods burst, and it is time to pick the cotton. Then it is indeed a busy time. At earliest dawn the cotton-pickers are assembled; and through the whole day until night comes, and they can see no longer, they are busy picking the cotton from the pods. Formerly negro slaves were employed in this work, and they were often cruelly treated and overworked during the time of the cotton crop; they were kept to their work by overseers, armed with whips, who flogged all those who did not work fast enough; and every slave who at the end of the day was not found to have picked a certain weight of cotton was severely punished. But now, all the negroes in the United States have been declared free, and they are better treated, and paid for their labour.

When the cotton is picked from the pods it is laid in the sun to dry, and then carted to a mill, where the seeds are separated from the fluffy covering. The seeds are used to plant again, so that new trees may spring up next year; or else they are ground to make oil.

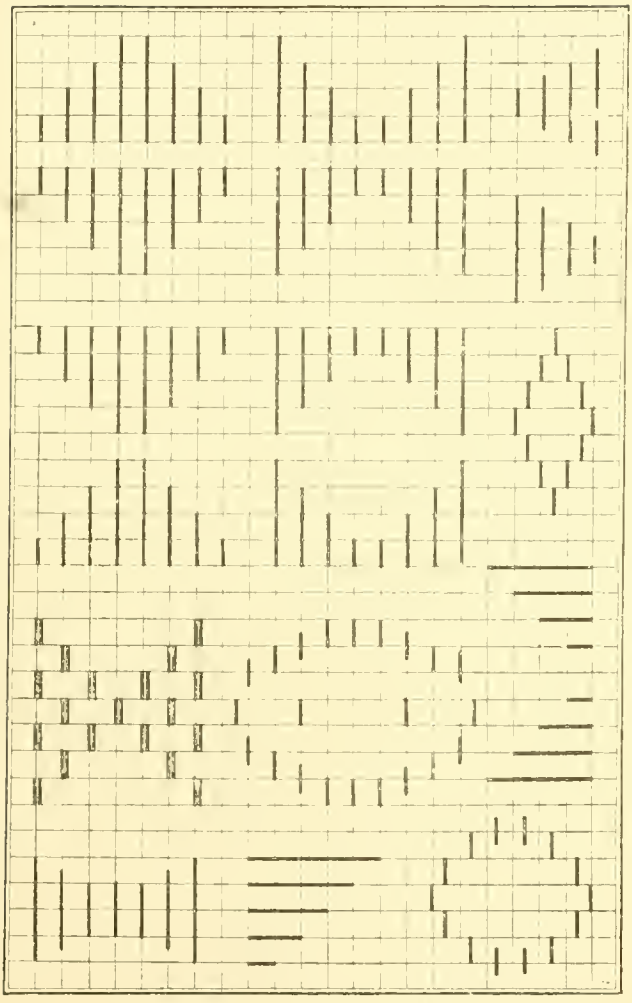
The cotton, having been roughly cleansed in the mill by an instrument called "a gin," is next made up into bales to be sent to England. A bale is a parcel wrapped in cloth and tied up with cords, or else bound round with very thin iron bands. The bales of cotton sent from America weigh about three hundred pounds. They are carried in carts drawn by oxen to the town where they are put on board ship. The bales packed in India are smaller, as they have to be carried to the seaports on the backs of camels. That which is grown in America can be sent by the Mississippi river in a steamer to New Orleans, and there put on board another ship. Here it is packed so tightly, that when the ship is ready to sail, every nook and corner is filled with it. Before packing, it is compressed—that is, squeezed into the smallest possible space—by means of

engines worked by water: these are called hydraulic engines.

When the ship arrives in England the bales are unloaded and warehoused. At Liverpool there are a great number of docks for the ships, and warehouses for the cotton. So great is the trade, that a large building has been constructed solely for merchants to transact business relating to it, and they and their brokers are such good judges that they can tell at a glance all the different kinds and their value; for cotton varies very much in colour, length, and silkiness. Every day, and almost every hour, messages are sent by means of the electric telegraph cable under the sea between England and America about the price of cotton, and other information respecting it.

From Liverpool cotton is often shipped again to other countries, but large quantities are bought by English manufacturers, and the bales go by rail to those towns where so many things are made which we all use, that they are called "manufacturing towns," such as Manchester, Leeds, and Rochdale. When the bales reach the factory they are unpacked, and the cotton is found matted and tangled and mixed with broken seeds, so the first thing to be done is to clean it perfectly, by passing it between two sets of fine wire points, bent in opposite directions, which comb out the cotton and lay it flat. It is combed two or three times, and it then looks beautifully white and soft, and is called "sliver."

The next process is termed *drawing*, because the sliver is passed through a machine called a *drawing-frame*, which *draws out* and arranges the fibres in a uniform and parallel direction. The fibres are then twisted into thick "roves" or loose cords, which are wound on bobbins, from which they are twisted or "spun" by the spinning machine into fine thread called yarn. The yarn is then woven in a machine called a loom, into all kinds of fabrics for shirts, under-clothes, dresses, &c. These processes are all carried on by beautifully-made machinery, which you will be able to read about and understand better when you are older; but you now know something of the many processes through which cotton has to pass from the time that it grows on the tree to the moment when you can put on nice little cotton garments.



DRAWING ON RULED PAPER.

A KINDERGARTEN TOY.

DRAWING ON RULED PAPER FOR THE LITTLE ONES.

FIRST DRAWING LESSON.

THE first difficulty most persons experience in learning to use the pencil is undoubtedly to draw a straight line. The plan pursued under the Kindergarten system, however, is well calculated to overcome this obstacle, and even the

youngest pupil is not discouraged, as some result is obtained from the beginning.

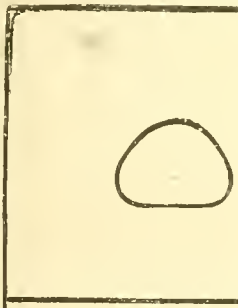
The plan is to rule a slate or the page of a drawing-book into squares of half an inch (see diagram on previous page). The child should then be taught to make vertical and horizontal lines over the thin ruled lines, care being taken that the drawing-book or slate is held straight, and that the pencil *is held at right angles* with the line to be produced. At first the little learner should not go beyond the length of one square, and should begin with the vertical strokes, to form which the elbow should be, of course, away from his side. Horizontal lines may next be made, in forming which the elbow is, of course, *near* to his side. Then the little pupil may go on by degrees to two, three, four, and five squares. This will be found to be excellent practice and should be frequently repeated. After a time the lines may be drawn *between* the squares, and by this means the hand will be trained to follow the eye.

Slanting lines may next be formed diagonally through the square.

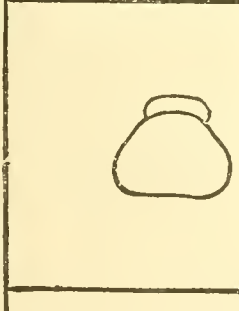
In this way the little learner is pleasantly occupied, and learns to form vertical, horizontal, and slanting lines, while his hand will be educated to follow his eye in tracing the outlines of various objects. In our next exercise we shall introduce the pupil to the drawing of the right angle, and then proceed to lines which wave and curl. Meantime, to add a little amusement to our straight-line lesson, we will give one of a more comical nature.

COMICAL DRAWING LESSONS.

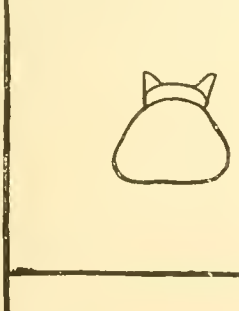
NO. I.—HOW TO DRAW PUSSY.



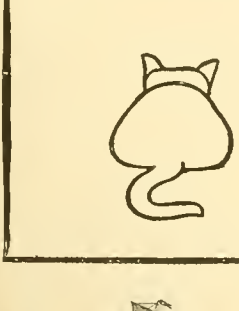
When Ellen makes up
dough for bread
A roll like this
you see.



One turnover she
puts on top,
Because it pleases
me.



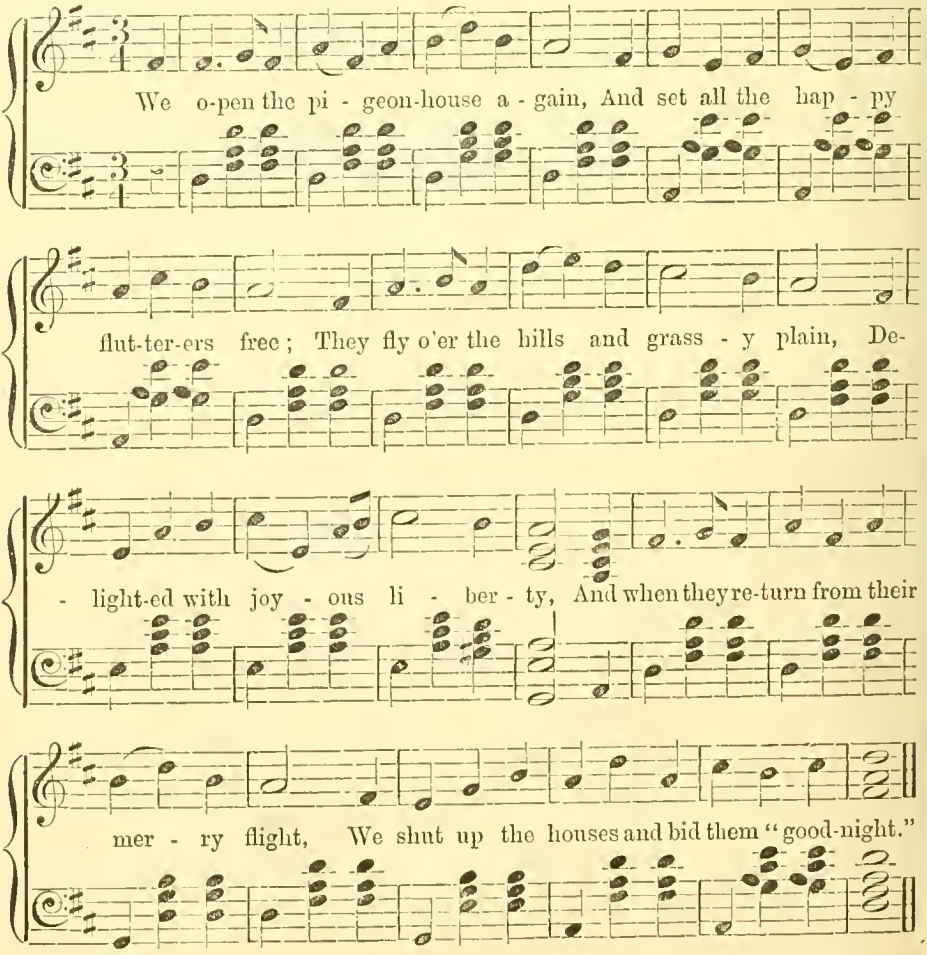
Now when I saw Miss
Pussy's back
As she lay upon
the mat,
I thought of Ellen's
bread and pie
It surely looks
like that,
So adding ears and
tail I had,
The rear view of
my cat.



KINDERGARTEN GAMES AND SONGS.

III.—THE PIGEON-HOUSE.

A MAJORITY of the children form a circle with joined hands, to imitate a pigeon-house; the rest stand or crouch close together in the centre. Instructed in the first instance by the teacher—an important proviso, for the games must never, under any circumstances, be allowed to degenerate into a romp—these imitate the "cooing" of pigeons. At the commencement of the song those forming the circle (or pigeon-house) raise their arms (to form the pigeon-holes) and widen the circle to the utmost. The pigeons then run out under the raised arms of the others and fly about, flapping their arms like wings, until the words "and when they return," at which they fly home again. The circle is then gradually contracted, and the "pigeon-holes" are closed, the late comers being shut out.


We o-pen the pi - geon-house a - gain, And set all the hap - py
flut-ter-ers free; They fly o'er the hills and grass - y plain, De-
- light-ed with joy - ous li - ber - ty, And when they re-turn from their
mer - ry flight, We shut up the houses and bid them "good-night."

WIN-TER HAS COME. THE SNOW IS FALL-ING.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

III.—LITTLE SENTENCES.

HERE are some of the little sentences Harry was able to read. You will be able to read them also, I am sure. Try.

I am to go to bed.

Dol-ly is to go to bed.

Capital! I knew you could read these little words. Now turn over, and you will find some more.

Tom and his top.

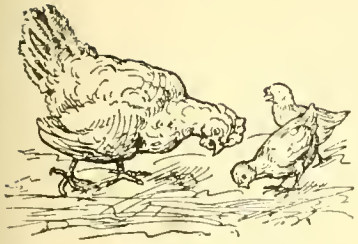
Do as she is do-ing.

We go to see Sam.

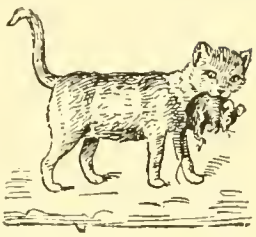
I saw mam-ma go in.

Man, dog, and gun.

Ba-by is on the bed.



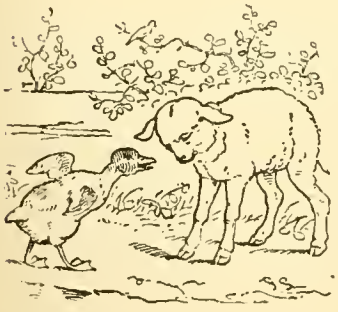
I can see the hen.



The cat and the rat.

It is not my dog.

Ben is say-ing, Go on.



Baa ! Baa ! is its cry.

Dol-ly is in bed.

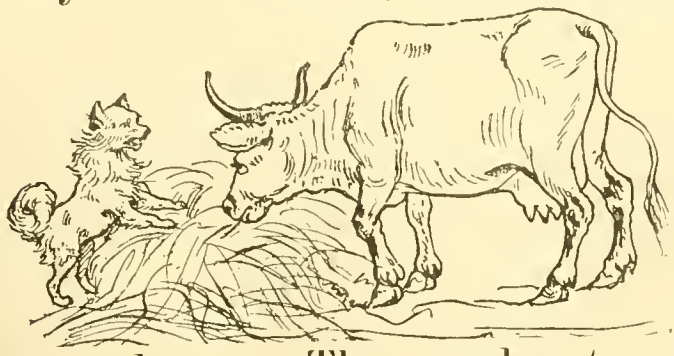
Oh! it is fun. Go on, gee-gee.

I am ill in bed. Do not go a-way.

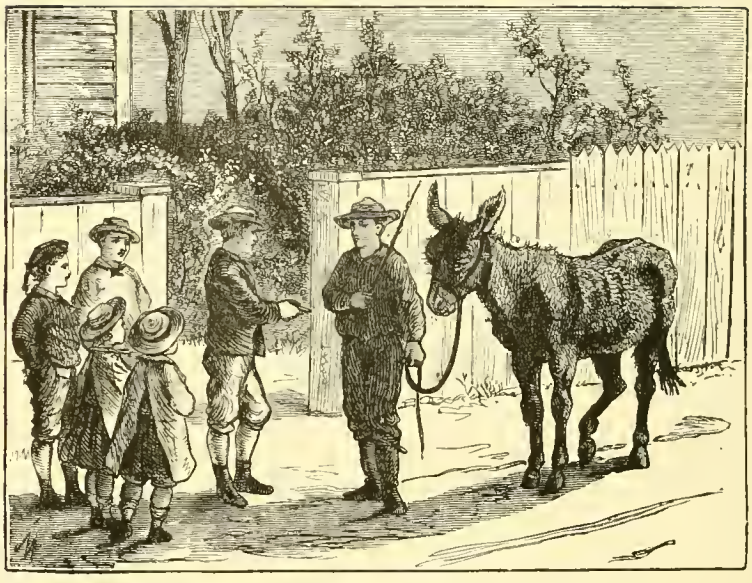
Oh! Tom-my has fal-len. His hat is off.

The boy is on the nag. He has on a big hat.

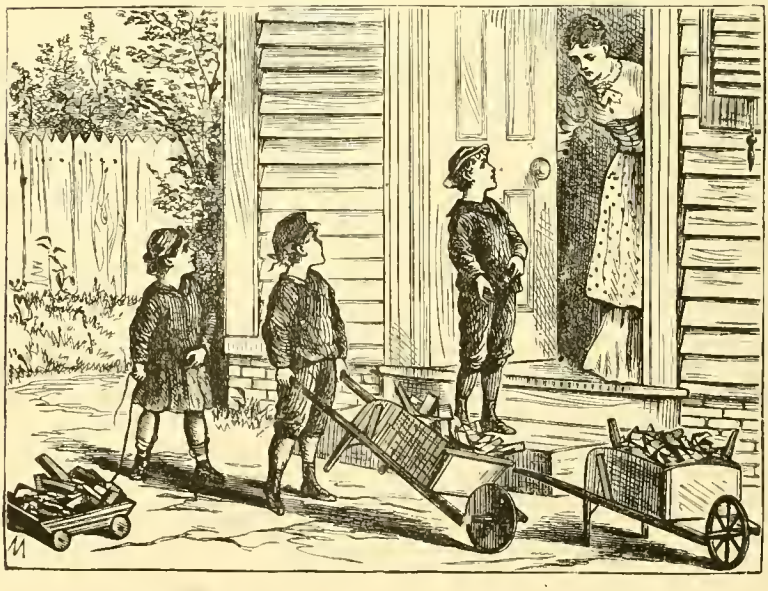
Wil-ly has a new toy for a wet day.



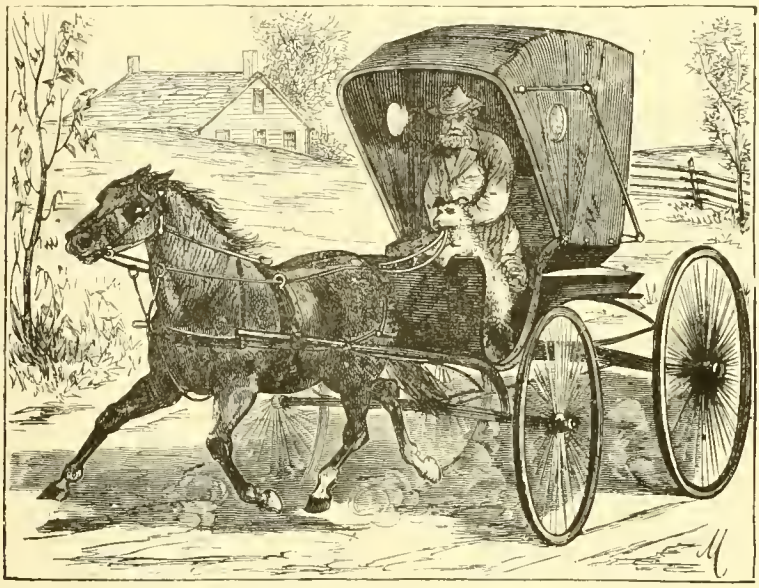
The dog and cow. The cow has to eat hay.



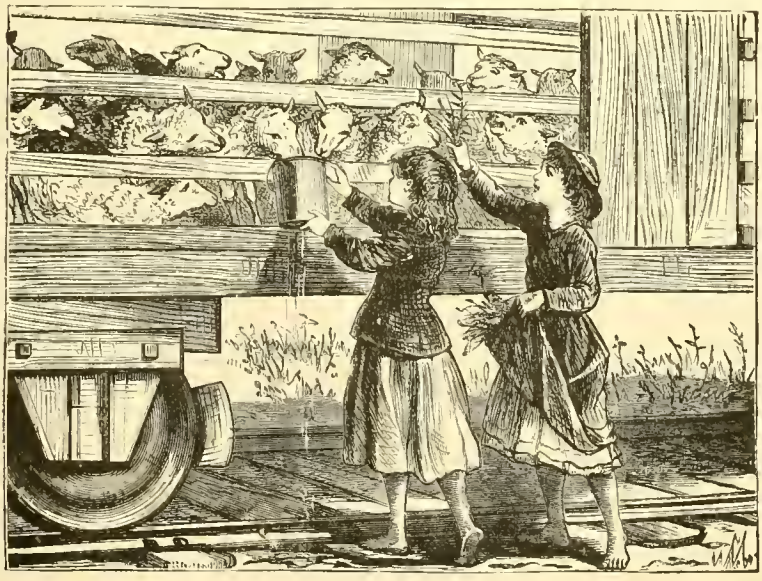
Let me get on the don-key.



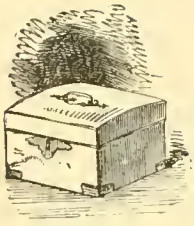
Ben, and Jem, and lit-tle Joe, had fun in the gar-den.



Pa-pa and his dog Bob are in the gig.



Ma-ry and Ma-bel are giv-ing wa-ter to the sheep.



B O X
B o x
b o x

M O P
M o p
m o p

C O W
C o w
c o w

P U P
P u p
p u p

F O X
F o x
f o x

H U T
H u t
h u t

H O G
H o g
h o g

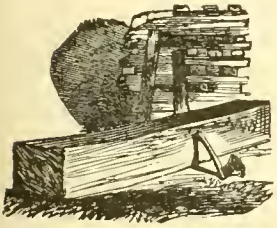
G I G
G i g
g i g

R A M
R a m
r a m

H A Y
H a y
h a y

B A G
B a g
b a g

M E N
M e n
m e n



L O G
L o g
l o g

T U B
T u b
t u b

A P E
A p e
a p e

V A N
V a n
v a n

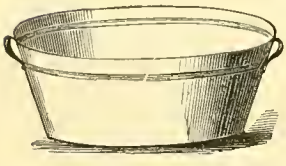
B U S
B u s
b u s

I N N
I n n
i n n

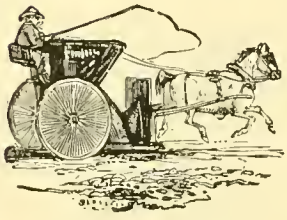
I C E
I c e
i c e

R O D
R o d
r o d

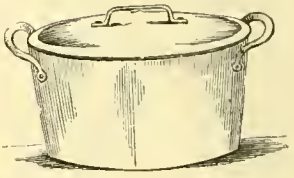
J A Y
J a y
j a y



P A N
P a n
p a n



C A B
C a b
c a b



P O T
P o t
p o t

A X E
A x e
a x e

B O Y
B o y
b o y

F O G
F o g
f o g

B U Y
B u y
b u y

S E A
S e a
s e a

A S S
A s s
a s s

C U T
C u t
c u t

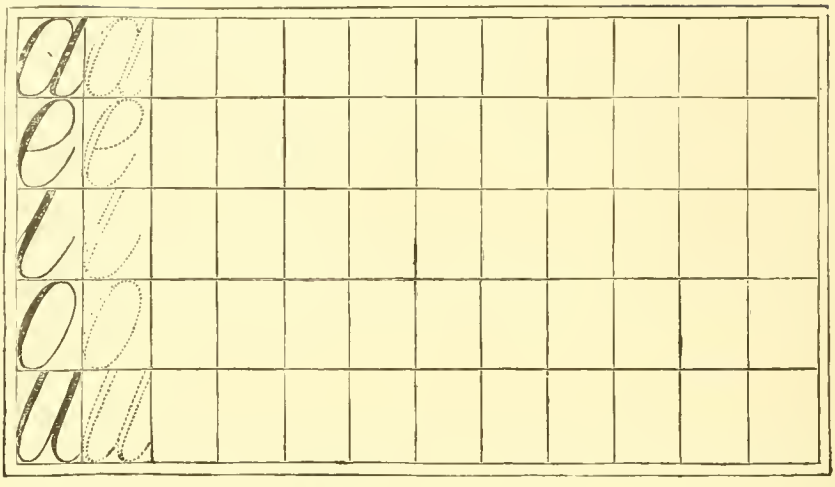
B E G
B e g
b e g

L A D
L a d
l a d

A N N
A n n
a n n

M A D
M a d
m a d

M A N
M a n
m a n

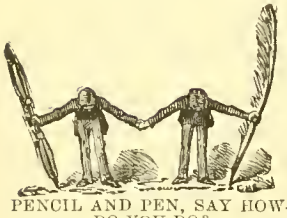


AMY'S WRITING SLATE.

WRITING MADE EASY.

No. III.

SIMPLE LETTERS.



PENCIL AND PEN, SAY HOW-DO-YOU-DO?

HAVING practised straight lines and "pot-hooks" for a long time, until Amy had succeeded in making them fairly well, her mamma, greatly to her delight, allowed her to try simple letters, such as I told you last time.

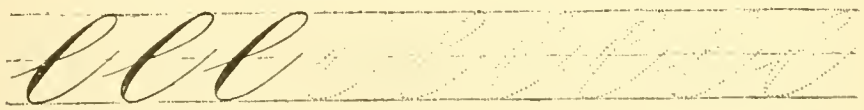
First she was given the vowels *a e i o u.* The slate was ruled into squares, as before, and letters made within the squares, as in the picture at the top of the page.

Then, when Amy had made the letters over the dotted lines many times, squares were ruled on paper, and she was entrusted with a pen. And when she had practised them for some time, lines

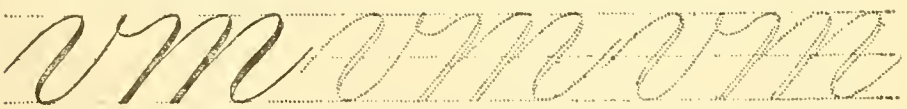
were ruled and letters made without the squares, like this—

The middle line showed her where the letter should be widest, and also where she was to put her pen to begin making the letter. Then followed a few *a*'s, like this—

Amy did not succeed with these quite so well as she had expected, but mamma encouraged her to persevere; and after a little time she allowed her to leave off: bringing her to it again, however, the next day, and sometimes twice in one day, so that she had a number of little lessons rather than one long, tiring one. In this way she came by degrees to make very fairly shaped *o*'s and *a*'s. Then *e* was treated in the same manner:



and also *i* and *u* and *v*. Then two letters together, as—



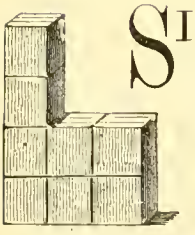
In this way Amy made many of the letters of the alphabet, and, in great delight, one day she was sitting down to write a letter to papa, when her mother cried aloud: "Stop! stop! my child, you have not learned yet how to make letters above or below the line!"

How many Kittens are here? *Five.* But suppose another was put in the tub, how many would be left? *Four.*

PICTORIAL ARITHMETIC.

CHAPTER III.

SUBTRACTION.



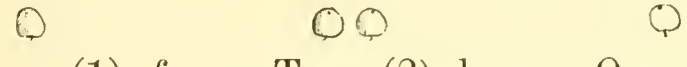
CUBES FOR TEACHING ARITHMETIC.

SINCE last time I hope you have added up a great many little sums. You should practise them every day, and, if you like, you may get a number of little squares of wood like those in this picture (or apples), and play at addition with them; thus:—Put them in groups of one or more on the table, and then add them together.

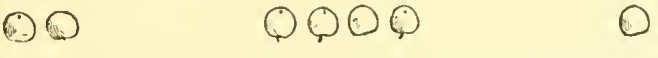
Suppose you first put one on the table, and then put the figure 1 on your slate; then put two on the table, a little way off from the one, and then put the

figure 2 on the slate, and so on. Then count up the cubes on the table, and then add up the figures on the slate : both should agree. You should play like this every day. I hope you now see quite clearly that Addition means adding up together. Addition is known as the *first Rule* in Arithmetic.

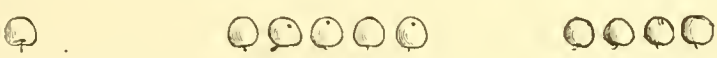
I will now pass on to tell you the second Rule in Arithmetic. It is called *Subtraction*, and it is the very opposite to Addition, for as addition means adding together, so Subtraction means taking away from ; thus—



One (1) from Two (2) leaves One (1).



Two (2) from Four (4) leaves Two (2).



One (1) from Five (5) leaves Four (4).

Two (2) from Seven (7) leaves Five (5).

One (1) from Eight (8) leaves Seven (7).

One (1) from One (1) leaves nothing.

Or we may put the same thing in figures, neatly, like this:

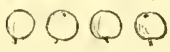
2	4	5	7	8
1	2	1	2	1
1	2	4	5	7

You see, there are only two lines in a subtraction sum. You may play at subtraction with your cubes, just as you played at addition, only remember that subtraction is *taking away from*, and addition is *adding together*.

Let us try again. Here are some little sums:

7	4	6	8
4	3	2	4

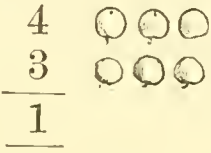
To work these, we take away from the top figures the figures in the under line. Begin at the right-hand side and say, 'take 4 away from 8'; because, you see, the top figure is 8, and the under figure 4, thus:

8
4 

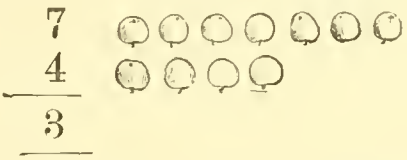
Now put 8 cubes on the table, and if you take 4 away from them, 4 are left, so the answer must be 4. The next two figures are 6 and 2, so we say, take 2 away from 6:

6
2
4

This also leaves 4. The next two figures are 4 and 3. Put 4 cubes on the table, and take 3 away from 4; 1 is left:



So we put down 1. The next two figures are 7 and 4; put 7 cubes on the table, and take away 4; how many are left? Three. Take 4 away from 7:



This leaves 3. Remember, in working a subtraction sum one must always take the amount of the under line away from the amount of the top line: in other words, *subtract* the under line from the top line. Now you must play a few games every day with your cubes, and work a number of little sub-trac-tion sums, until you could tell directly what ten taken from twenty leaves, what nine from twelve, and so on. I will tell you more about subtraction next time; but now, try to answer these few questions:

QUESTIONS ON CHAPTERS I., II. AND III.

How many fingers and toes have you?
How can you tell this?
Count your fingers.
What is Arithmetic?
What is the first rule in Arithmetic?
What does Addition mean?
Count up to twenty.
Add up 6 *and* 3 *and* 4 *on the slate and on the table with the cubes.*
What is the answer?
What is the second rule in Arithmetic?
What does Subtraction mean?
Take 6 *away from* 12 *on your slate, and also with your cubes.*
In working a little subtraction sum, what have we to remember?

THE DEATH OF HAROLD AT THE BATTLE OF HASTINGS.

TALES OF OTHER TIMES;

OR,

THE HISTORY OF ENGLAND IN EASY LESSONS.

V.—THE NORMAN CONQUEST.

WILLIAM THE CONQUEROR CROSSING THE CHANNEL.

AFTER Canute died, two more Danish kings—his sons—succeeded him, and then the crown passed again, but for a few years only, to the Saxon line. It was first worn by Edward, known as Edward the Confessor, from his religious character, and then by Harold — a name you must never forget as the last of the Saxon kings, and one of the bravest and most noble of men.

He was the son of the great Earl Godwin, and the Witan appointed him king at the death of Edward the Confessor. Soon after he came to the throne,

Hardrada, king of Norway, and Tostig, Harold's wicked brother, invaded Yorkshire and ravaged the country. Harold marched to meet them, and a fierce battle was fought at Stamford Bridge.

When the Norway king cried out, "What land will you give me to live here peaceably?" Harold replied, sternly, "Six feet of English ground!"—which meant his grave. The Norwegians were conquered, and both Hardrada and Tostig were killed. But scarcely had he gained this victory when news was brought that William, Duke of Normandy, had landed on the coast of Sussex. So Harold had to march southward night and day to oppose him. The Saxons arrived on the 13th of October, and a long and terrible battle was fought, in which the Saxons at first seemed to gain the victory, but the wily Duke having sent off some of his horsemen as if in flight, the Saxons, thinking the battle won, broke their ranks, when the Duke, making a fearful charge, overcame them. But they continued to fight bravely, until an arrow striking Harold in the eye, killed him. Then they fled to the woods. William was completely victorious.

This battle is called the Battle of Hastings, and the Duke is known as William the First, sometimes William the Conqueror. He was a stern and cruel man, very brave and very merciless. The English both feared and hated him.

VI.—WILLIAM THE CONQUEROR.

After the battle of Hastings, William marched to London, and the people having submitted to him, he was crowned king of England on Christmas Day, 1066.

While he was being crowned some disturbance occurred outside, the Normans having, either by accident or love of plunder, set fire to some houses. Resistance was made, but soon quelled, and the coronation completed in haste. Revolts like this were continually breaking out.

Some of the nobles agreed to obey him as their king if he would allow them to enjoy their rank and riches, and to retain possession of their lands.

But by degrees these were taken away from most of them,

and were given to the Normans who had helped to conquer the country. The islanders fought bravely against the Normans, and for seven long years the struggle continued. But at the end of that time the Normans were in possession of all the land, and nearly all the former owners of it had been dispersed or slain.

COMMOTION DURING THE CROWNING OF WILLIAM THE CONQUEROR.

Some of these nobles hid in the forests, and kept up a constant warfare against the conquerors. The most famous of these was named Hereward. He formed a Camp of Refuge at the Isle of Ely—a little island situate amid the marshes of Cambridgeshire—and many men fled to him from the cruelties of the Normans. For a long time he successfully resisted the

invaders, but at last some selfish monks who lived in the Abbey on the island, anxious to purchase peace for themselves, betrayed Hereward, and nearly all his supporters were killed.

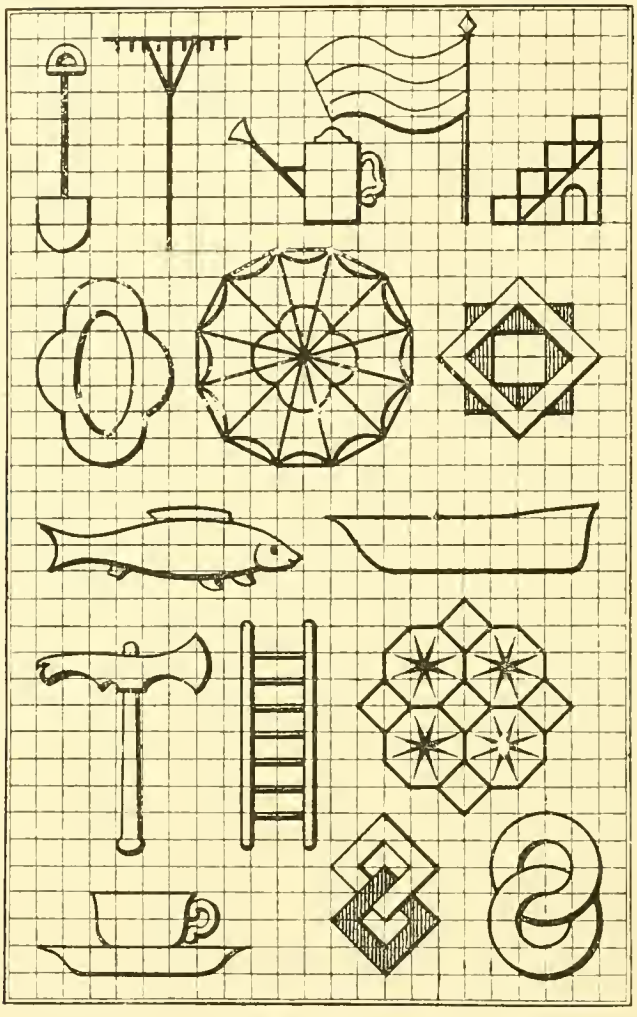
The Normans were a more civilised people than those they had conquered. They knew more about building, and were able to till the ground better. They made a great many of those strong stone castles, of which some portions yet remain in some parts of the country. They also built strong houses of wood and put chimneys to them, for before this the houses in England were most of them built without chimneys.

It was in the reign of William the Conqueror that the famous "Domesday Books" were compiled. These were a register of all the English towns and land, recording the size of each estate; to whom it belonged; and what the owner did with it. These immense books occupied six whole years in compilation, and they are still in existence, so perhaps you may see them one day. They are written on vellum, a substance prepared from the skin of a calf, which if taken care of, will last for hundreds of years.

William also made a law that at eight o'clock at night a large bell was to be rung in every town and hamlet, as a signal that all fires and candles were to be put out. This seems very tyrannical, but may have been intended to save the wooden houses from being burned, and perhaps to keep the people at home and prevent them from meeting together to plot against him. This bell was known as the "Curfew," from the French words *courre feu* (cover fire), and in some places the church bells still ring the "curfew" at eight o'clock every night, although of course there is no law now compelling us to put out our candles and fires at that hour.

During his reign also the forest-laws—the origin of our game-laws—were made. They were very cruel, and inflicted terrible punishments upon those who killed deer. William also burned down a number of cottages and churches in Hampshire—between Winchester and the sea—and caused the ground to be planted with trees. This immense wood remains to this day, and is still known as the New Forest.

William also annexed the Channel Islands—Jersey, Guernsey, Alderney, and Sark—which have belonged to England ever since.

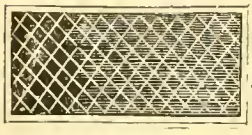


DESIGNS FOR DRAWING ON RULED PAPER.

A KINDERGARTEN TOY.

DRAWING ON RULED PAPER FOR THE LITTLE ONES.

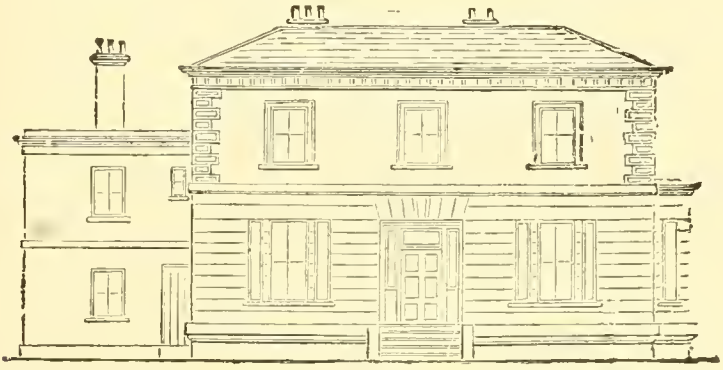
II.—VARIOUS DESIGNS.



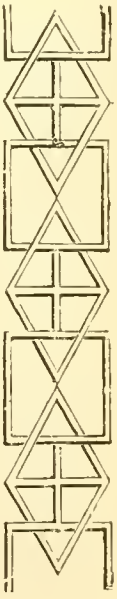
SLATE RULED DIAGONALLY.

HAVING practised drawing straight lines, the little pupil may now proceed to make right angles. This is a very useful exercise, and should be frequently repeated. The slate or paper may then

be ruled diagonally, and the child taught to draw the horizontal and vertical straight lines, from point to point, and to form right angles as before.

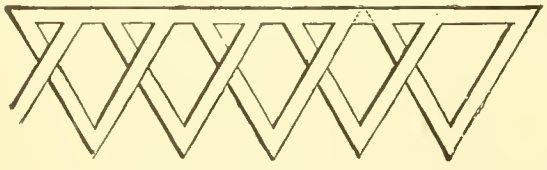


Obtuse angles, such as are formed by the top of the roof of the house in this diagram, may then be made, and other simple angular designs, as may occur to the mind of the Teacher. All these very elementary practices should be frequently repeated before passing to the more complicated designs, such as shown in the illustration on previous page.



When the pupil arrives at these, however, they will afford quite a large fund of amusement, as an almost infinite variety of illustrations can be obtained. After drawing all the figures separately, the ladder, or some design such as this, may be drawn as a bordering round the slate. A large geometrical figure, such as the one which appears next to the ladder in the diagram, can be put in the centre, while smaller ones can be placed in each corner, just within the bordering. The rake or flag may be placed in the top centre ;

the spade or rake at the two sides, and two hatchets facing each other at the bottom, while the fishes and watering-pot may be placed in any odd corner. Other designs, of course, should be added as they occur to the teacher; it being borne in mind, that

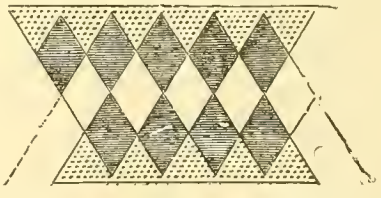


however simple the copy, it is almost certain to present some difficulty to very young children, and they should not be scolded for failure, but gaily encouraged to "try again."

The spade, the rake, the flag, the flight of steps, will all be found easy, as also will the house. It will not be necessary, at first, for all the details of the latter to be copied.

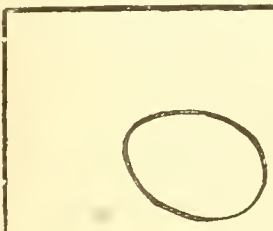
In this, as in other branches of the Kindergarten system of "Toy teaching," a number of short lessons frequently repeated are far more effective than a few long ones. Moreover, the drawing on ruled paper should never be allowed to degenerate into mere scribbling.

To give an idea of shading, the older pupils may be allowed to thicken the lines in certain places, and also to fill up some of the squares, as in this example. Having practised these and similar designs for some time, the little pupils may be allowed to invent some for themselves, commencing at first with two squares, until at last they are able to dispense altogether with the ruled paper, and enter upon a more advanced stage.



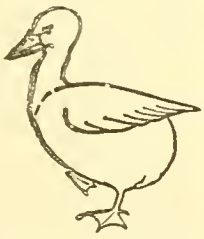
COMICAL DRAWING LESSONS.

NO. II.—HOW TO DRAW A GOOSE.

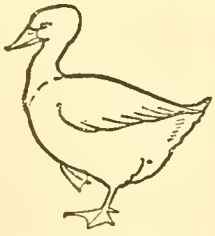


The Goose has a body
the shape of an egg.

With a round head
a long neck and bill.



When the weather is cold
she can stand on one leg
With some wings she can fly
if she will.



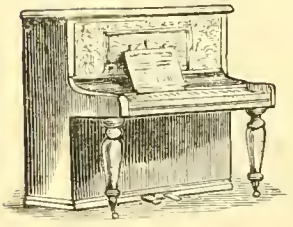
Now we give her a tail
more for beauty than use
And out of our eggs comes
a very nice goose.

A LITTLE CONCERT.

MUSIC AND SINGING.

CHAPTER III.

SOMETHING ABOUT THE CAGE.



MAMMA'S PIANO,
or the "cage where the black and white birds live."

NOW that we know the names of all the white and black birds which live in this cage, called a piano, we must try and find out something about the cage itself.

The house in which you live has an upper and a lower part, has it not? The upper part you call upstairs, and the lower part downstairs. This piano-cage has also an upper and a lower part. The upper part is that which lies to your right hand, and this is called treble. Those little black and white birds which lie to the right of the cage live in the upstairs or treble, and those little black and white birds

which lie to the left of the cage live in the downstairs or bass.

Remember, the upper part of the cage is called treble. This lies to the right hand. The lower part of the piano or cage is called bass. This lies to the left hand.

When you want the birds which live in the treble to sing, you must touch them with your *right* hand; and when you want the birds which live in the bass to sing, you must touch them with your *left* hand. This is quite easy to remember, is it not?

Those birds which live in the bass, or what we call "downstairs" of the piano-cage, have a deep, full voice. Some of the birds seem to *growl* rather than sing; these are the birds which live very low down in the bass. The bass birds which live nearest to the treble birds have very pleasant, musical voices. The treble birds have all pretty voices; those right upstairs in the treble have little weak sweet voices, something like the tone of a flute. But you will remember the different voices of the birds much better and more easily when you come to touch them for yourself, or *play* them, as it is called. You know that when your mamma is touching these little birds and making them sing quite quickly, you say that she is "*playing upon the piano*," do you not?

CHAPTER IV.

SIGNS FOR TREBLE AND BASS.

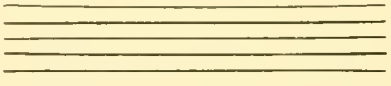
It is time now that you should know something about the songs these birds sing, and by what

means people learn to touch each little bird in its turn, so that as each little voice is heard one after the other, such pretty tunes and songs are the result.

When any one learns to read he must first learn his letters, and then how to spell words; first, short words of one syllable, and then longer words of two or three syllables, and so on, until the learner can read quite quickly, and knows just as soon as he looks at a page of a book what are the words and sentences upon it.

Now, in music we have neither words nor sentences, but we have *notes*, sometimes single notes, like the words in the printed page of a book, sometimes *chords*, which are composed of two or three notes, just as a sentence is composed of two or three words.

These notes are printed upon lines, or in spaces, and the first thing we will do is to find out what a line is, and what a space is. In music there are five lines. Here they are—



Of course you can see the lines quite plainly, and count them too; but where are the spaces? Do you see those little white portions of space between each line? These are the *spaces*. There are four spaces Just count them, and see for yourself. So there are *five* lines and *four* spaces.

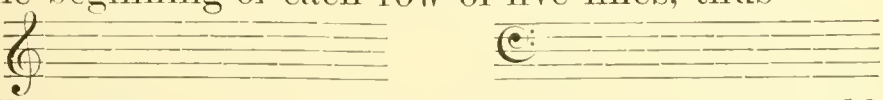
I have already told you that the birds are divided into two kinds—the treble and the bass birds.

When you are going to play a song or tune, and you come to a sign like this—

you will know that you are to play the *treble* birds, for 𝄞 is the sign of treble; and the treble, you know, is played with the right hand. When you come to a sign like this—

you will know that you are to play the bass or downstairs birds, for 𝄢 is the sign of bass; and the bass, you know, is played with the left hand.

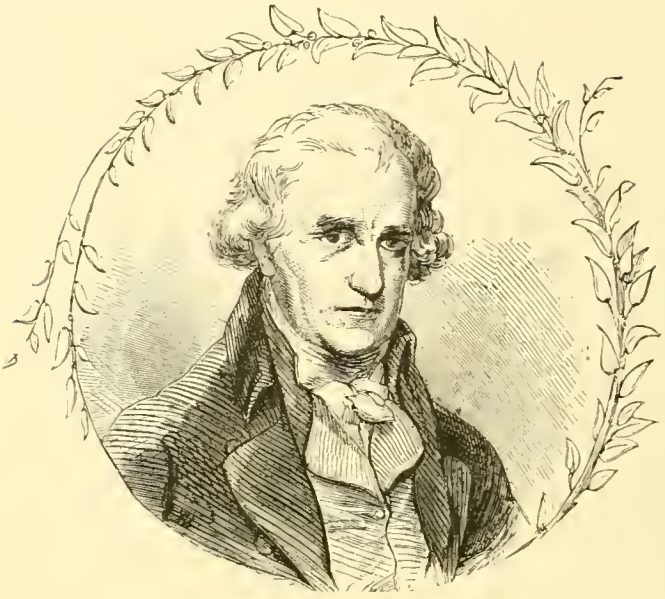
The signs treble and bass are placed quite at the beginning of each row of five lines, thus—



The upper row of lines and spaces is the treble, the lower lines and spaces represent the bass. In reading music, you must look at the upper or treble line when you want to know which birds to touch with your right hand, and you must look at the lower or bass line when you wish to know which birds to touch with your left. I hope you can understand all this. I'm sure, if you have some kind teacher to read this to you, and show you just where the treble and bass birds lie in their cage, that you cannot fail to understand all about it. Do not forget the two signs—

𝄞 treble, and 𝄢 bass,

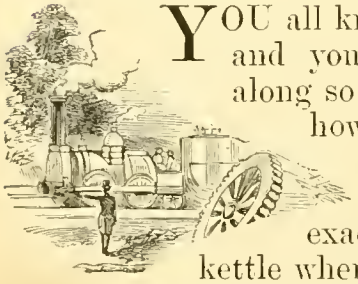
and next month I will tell you what notes are, and what they mean.



JAMES WATT.

LITTLE STORIES OF GREAT LIVES.

I.—JAMES WATT, THE IMPROVER OF THE STEAM-ENGINE.



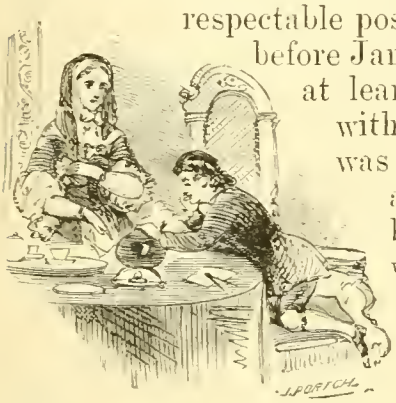
YOU all know what a steam-engine is, no doubt, and you have seen steamboats also, sailing along so quickly on the sea. And if you asked how these wonderful machines were made to go along, you were told "by steam." Yes, by steam; the same sort of thing exactly that rises so harmlessly out of a kettle when it is being boiled for tea.

But who discovered this wonder? Who found out the secret of making the steam drive the engine? Well, the idea came to many people hundreds of years ago, but they did not or could not make much use of it. And the man who *improved* the steam-engine so much that he is sometimes called the *inventor* of it, was James Watt.

When he was a little boy, he used to sit for half an hour at a time looking at the kettle and watching the steam raise the lid, and sometimes he would press his finger on the lid (as you see him in the picture) to feel how much power the steam

had to push it up again. And from watching that tea-kettle when a boy, he began to have ideas of improving the clumsy engines then used. Would you like to hear something of how he did this? I will try and tell you.

James Watt was born in Greenock in 1736. Greenock is a town in Scotland. His father was a merchant, holding a respectable position in the town. It was not long before James showed that he was specially apt at learning, and fond of anything to do with engines. While young his health was poor, so that he could not regularly attend school. This would have been hurtful to some young folks, who would have thought their delicate health a good excuse for not trying to learn; but it was not so with him. When at home he taught himself, and his weakness seemed to make him persevere in this quiet occupation.



JAMES WATT WATCHING THE TEA-KETTLE.

He chiefly took interest in geometry. We are told that one day a visitor called, and finding the boy, as he thought, scrawling random lines over the hearthstone, said it would be better for him to be at school than idling his time thus. "But look what he is about, before you condemn him," replied the father. The friend then found that the future engineer was busy trying to solve a hard geometrical problem.

But he did not study mathematics alone. His inquiring mind was fond of watching and trying to understand natural scientific wonders, such as, for instance, the power of steam; and even his toys were not *only* playthings. He liked to see how they were made, and to experiment on them. A set of tools given by his father occupied him many an hour. He *made* several toys, one being even an electrical machine. Thus he learned to work with his own hands. And this, no less than his other knowledge, helped him greatly in his wonderful inventions.

Besides this, Watt seems to have been a pleasant companion, and distinguished especially for one fine trait of character indispensable to all who would be really great men, namely, truthfulness. So truthful was he, that whenever his father

wished to find out the cause of any of the boys' quarrels he would say, "Let James speak. He always tells me truth."

JAMES WATT WHEN A LITTLE BOY.

So Watt's boyhood passed, and in his youth we see the foundations of that wide scientific knowledge, perseverance, and industry which helped to make him great.

At last the time came for him to earn his own living. His natural love of mechanics decided what business he should follow, and when he was 18 years old he was sent to London, where, after much difficulty, he found work with a mathematical-instrument maker. There he stayed a year, learning to make such instruments as compasses, parallel rulers, &c. At the end of a year his health gave way, and he was obliged to return to Scotland.

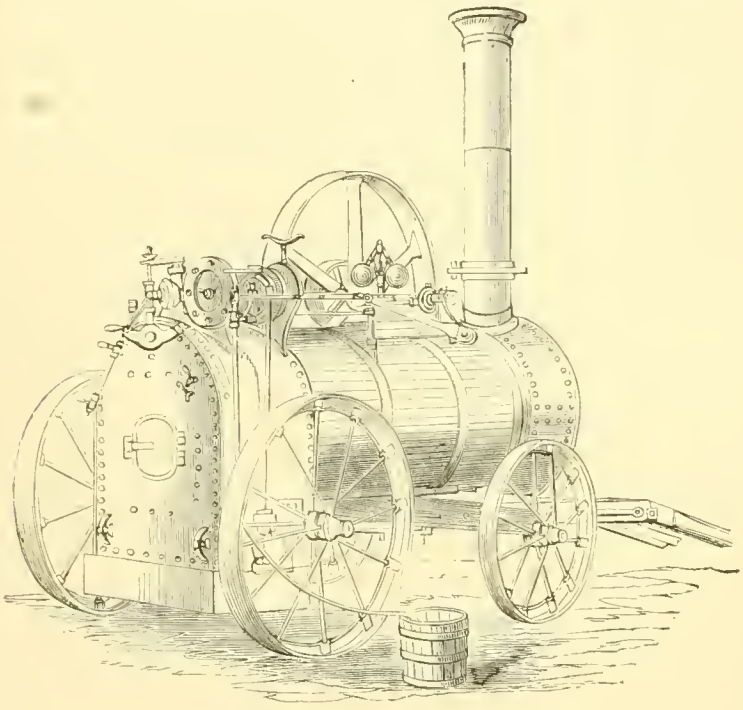
When he recovered, he resolved to start in the same business in Glasgow. It was some time before he succeeded in doing so, but at last he was helped by the authorities of the University, who appointed him mathematical-instrument maker to the University, and gave him the use of rooms in their building. Here he worked hard for six years, until he was twenty-seven years old. Although with all his work he could scarcely make a living, still the time so spent was in many ways very happy.

His room was the resort of many clever men, such as Mr. Robison, Dr. Black, Dr. Adam Smith, who all became noted. There, in addition to his work, he pursued scientific studies of all kinds, especially investigating the nature of steam, greatly increasing his store of knowledge, and gaining the respect of professors and students alike.

At the end of six years, in 1763, he removed to a place of business in the town, was married, and before long began to earn more money than before, by working for a few years as a civil engineer, making plans for canals, and improving harbours. He soon proved, however, that the great work of his life was to be of another kind.

One day, in 1764, he was asked to repair a model of an engine, used by one of the University professors when teaching Natural Philosophy. It was a copy of the engines made by

Newcomen, and used to work pumps. It consisted of a cylinder and piston. You can see what these were like if you take a common squirt and cut off the pointed end. The barrel is the cylinder, the tight-fitting piece that moves up and down inside is the piston, and the rod fastened to this is the piston-rod. Steam from a boiler was sent into one end of the cylinder, and the piston-rod moved up; then when this



PICTURE OF A STEAM-ENGINE.

[The fire is made in the large, round-topped box on the left; the water to make the steam is boiled in the large, round tube; the smoke escapes by the chimney; when a handle above the fire-box is turned, the steam rushes into a cylinder and moves a piston up and down, and the piston pulls round the wheel.]

steam cooled to a drop of water the air pushed the piston down. The piston-rod was joined to one end of a balancing beam (like the cross beam of a pair of scales), to the other end of which was fastened the pump-rod. So as the piston moved up and down, the pump-rod moved down and up, and worked the pump.

Watt very soon repaired this engine; but while doing so the

thought struck him that he could in several ways improve it. He thought about this for two whole years, and found all his former study of the nature of steam come in most usefully to him. At last, after incessant thought and repeated experiments he succeeded, and made another engine, so much better than the old ones as to make them seem almost useless by its side.

First, he made it so as to be worked with much *less* steam than before. Then he sent steam into *both* ends of the cylinder, and so the piston was pushed down as well as up by it, instead of being moved partly by air. Again, by fastening the piston-rod to a wheel instead of a balancing beam, he made it fit not only to work pumps but to set in motion any kind of machinery.

In after years he added other improvements, and so became the maker of an engine, worked by steam, at a far less cost than the old ones, and able to do very much more than they. In fact, in its essential parts it was the same as those wonderful machines, now so common that hardly anything is made without their help.

The value of Watt's inventions was soon seen, and the next thirty-five years of his life were spent in the business of making and selling engines. The business was carried on in Soho, near Birmingham, and he retired from it in 1800 a rich and honoured man. He enjoyed his well-earned wealth and fame for nineteen years longer, and died at Heathfield, Sussex, eighty-four years old, in 1819. His friends *loved* him for his virtues. Every one respected him for his scientific knowledge and inventive genius. He was loaded with honours, and to-day his statue is to be seen in many of our towns. His genius and constant perseverance enabled him to be not only a great man, but great because a great benefactor to his countrymen.

When, therefore, you see great engines at work, you must remember James Watt, and how much he did in finding out all about steam, and in so cleverly improving the steam-engine.

Next time I will tell you about another great man, George Stephenson, who improved the railway engine and railways so much that people were able to travel by them, and many people regard him as the inventor of them.

THE FLOOD.

SCRIPTURE STORIES.

CHAPTER III.

THE FLOOD.

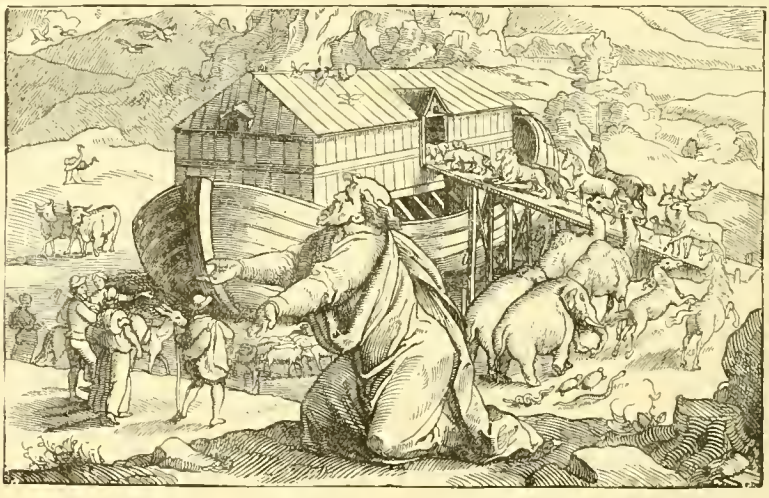
THE ARK.

LAST time, you will remember, I told you about Cain and Abel, and the sad result of giving way to naughty temper. Now I have to tell you how God punished the people in the world because they were so wicked.

Adam and Eve had other sons besides Cain and Abel, and also many grandchildren. The names of most of the men and women who lived in those days are too hard for you to remember, but you must learn the name of Enoch, because he was a very good man, so that it was said of

him "he walked with God." One of the sons of Enoch was called Me-thu-se-lah. He was the oldest man that ever lived.

As time went on, men and women began to forget God, and when the world had become quite full of people they grew so wicked that God became very angry with them, and determined to punish them. But one man named Noah, who was the grandson of Methuselah, was a good man, and God



THE ANIMALS GOING INTO THE ARK.

resolved to save him. Therefore God warned him that He meant to destroy the world by a flood, and told him to build an Ark for himself and his family, so that they might be saved in it.

The Ark was to be built something like an immense boat with a house on it, and it was to be large enough to contain Noah and his wife, his three sons and their wives, and a few of every kind of living creature upon the earth. The

under part, shaped like a boat, was intended to make it float upon the waters; and the upper part, shaped like a house, was intended to shelter Noah, his family, and all the animals that Noah had saved.

When Noah had driven all the animals into the Ark he entered in with his family, and the door was shut. Then the Lord caused it to rain for forty days and forty nights, so that in time the earth was covered with water, and every living thing outside the Ark was drowned.

When the water had been many days upon the earth, Noah opened the window of the Ark and sent out a raven. It flew away directly, and did not return.

A few days afterwards Noah sent out a dove, and it came back again almost directly. The second time the dove was let out it stayed away for some time, and when it flew into the Ark Noah saw that it had an olive-branch in its mouth, and he knew by this that there must be some dry land upon the earth. He let the dove out a third time, and this time it stayed away altogether.

At last the Ark rested upon a high mountain, called Mount Ararat, and Noah and his family and all the animals came out of it, for the waters had all gone down; and Noah prayed to God, and offered sacrifices to Him, in gratitude because they had been saved.

How beautifully fresh and fair the earth must have looked when at last the sun shone out once more upon the green trees and flowers! God has

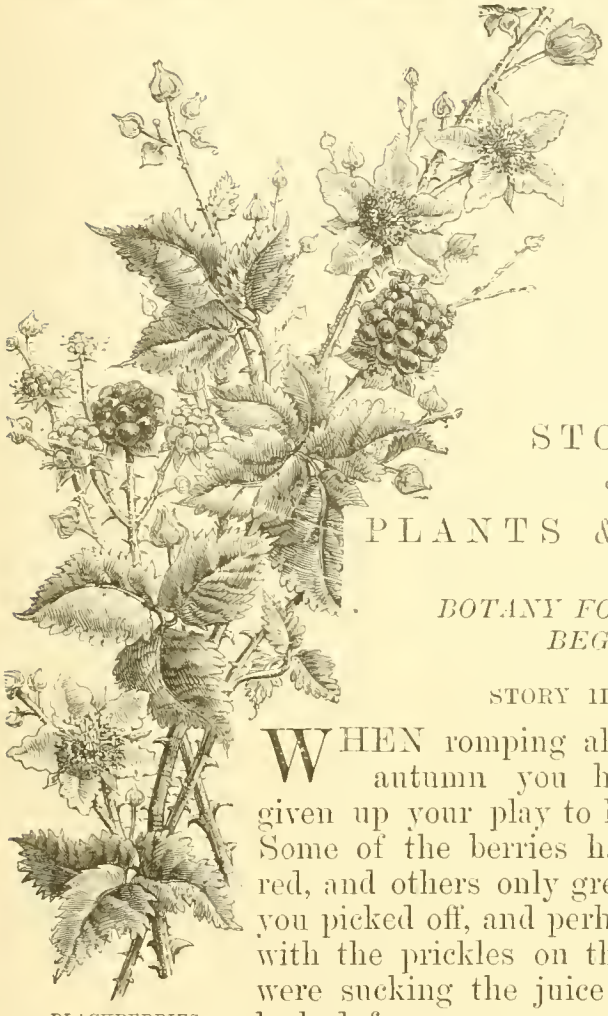
promised that He will never again destroy the world by a flood, and sometimes He sends, as a sign, the beautiful rainbow that we now and then see in the sky, to show us that He has not forgotten His promise.

NOAH'S SACRIFICE.

You must remember the story of Noah, and how God once destroyed the world by a flood, because the people were so wicked; and you may learn from it that God always rewards those who love Him, and try to keep His commandments.

QUESTIONS ON CHAPTER III.

Who was Enoch?
What was said of him?
Who was the oldest man that ever lived?
Why did God say He would destroy the world?
Whom did He save?
What did He tell him to do?
What was the Ark like?
Who were saved in it?
How long did it rain?
Were all other living things drowned?
What bird did Noah send out first?
What bird was sent next?
Where did the Ark rest?
What do we learn from the story of Noah?



BLACKBERRIES.

STORIES
OF THE
PLANTS & FLOWERS;
OR,
BOTANY FOR VERY YOUNG BEGINNERS.

STORY III.—FLOWERS.

WHEN romping along country lanes in autumn you have no doubt often given up your play to look for blackberries. Some of the berries have been black, some red, and others only green. The black ones you picked off, and perhaps hurt your fingers with the prickles on the stem. While you were sucking the juice out of the berry you looked for some more. There was another visitor to the bush beside yourself; it was a busy bee. The bee, however, only dipped into the flowers, and then, after hovering about for a few seconds, it flew off once more on its industrious journey, seeking honey.

Suppose now you follow the example of the bee, and examine the flowers well, instead of plucking off the berries. Look out for one of the most perfect flowers, as some of them are in no way perfect. For example, on the tree before us the white petals of the flowers have fallen off; the leaves behind, where the petals were placed, are bent right back, and look dried up, and the green berry in the centre seems to be surrounded by

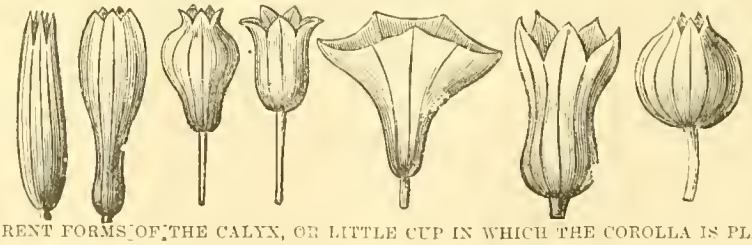
brown hairs. No; this is not the sort of flower we want, and upon looking round we find a perfect specimen. It has five white petals, as white as snow, and behind these are five little green leaves, which are called sepals. The white petals form a little crown (*co-rol-la*), and the green sepals one may imagine to form a little cup (*ca-lyx*) to hold the petals.

FIVE WHITE PETALS FORMING THE CO-ROL-LA, OR LITTLE CROWN.

What is there inside the crown of white petals? We come now to the most important part of the flower. Within the petals—that is, surrounded by them—there is a cluster of delicate white stems like threads (*sta-mens*), and at the top of each thread there is a little green body, which we may term a tiny bag of flour, if we are careful to attach to the word flour here a meaning which will be more clearly seen as we go on. In the middle there is the berry, quite young and green, consisting of a number of club-like or pestle-like parts, which the botanist calls *pistils*. The other hard words which the botanist uses in speaking of the parts of a flower, we have put into brackets, and shall seldom or ever use them; we may use this word pistil, however, as you will always remember it when you know clearly what it means. You have seen a druggist's *pestle* many a time, with which he powders things in a mortar; well, the Latin word for pestle is *pistillum*, and if we shorten this we get *pistil*, which is not very unlike *pestle*. Some pistils are shaped just like the druggist's pestle.

PISTIL OF PRIMROSE.

It will be seen, then, that in naming any part of a flower, it has been compared to some other thing, and then given the Latin or Greek name for the thing to which it is compared.



DIFFERENT FORMS OF THE CALYX, OR LITTLE CUP IN WHICH THE COROLLA IS PLACED.

The botanist, for example, will call the parts we have spoken of calyx, corolla, stamen, and pistil, which mean respectively

the "cup" of sepals, the "little crown" of petals, the "thread," and the "pestle." We shall here use the English terms in every case except that of the pistil.

Turning from the blackberry tree, let us find another flower and examine it. We walk into a field towards a cluster of buttercups. There is a fly in nearly every flower; these insects like flowers. One of the flies is so intent on its work that it does not stop even when we have separated the flower from the plant, but goes on digging its head down into the flower, between the golden petals and the threads with the little bags at the top of them. After doing this for a while it walks over the flower, and then flies off.

DIFFERENT KINDS OF STAMENS, OR THREADS OF FLOWERS WITH ANTHERS ON THEIR TIPS.

Examine the buttercup well. You will find five petals forming the little crown, and under and outside them the leafy cup made of five sepals. Inside the petals, and very much as you found it in the case of the blackberry flower, there are the threads with the little flour-bags at the top of them, and in the centre a berry-like cluster of pistils.

All flowers are not alike, however, in form. In the bean flower, for example, the petals forming the little crown are of unequal size. The biggest is called the *standard*; the two lesser ones on each side of the standard are called *wings*, and between these there are other two petals, so joined as to resemble the keel of a boat, and they are named the *keel*. Inside the keel there is a little sheath with ten threads standing from the top, each thread with its little bag of flour at the tip, and inside this sheath there is the pistil. The bottom or thick end of the pistil afterwards grows into the large pod full of beans. The sepals are all joined together to form a true cup, but their pointed ends are free and may be counted; there are five of them.

The flower of the common clover one finds in the fields is very like this of the bean. There are five sepals, joined

together to form the flower-cup. In the little crown there is one petal bigger than the others; two small wings, and opposite the biggest petal a little keel. Inside the keel there is the same form of sheath, fringed with threads on its upper edge, and inside the sheath there is a pod-like pistil. But the clover flower is so very small, that it is not so easy to make out its various parts as it is to make out the parts of a bean flower. This is not surprising, as a cluster of clover flowers of round form, and no bigger than a single bean flower, may contain as many as forty flowers.

In the flower of the blue-bell the same parts are seen again, but different in shape. The main differences you take notice of are these: the petals are joined together to form the blue-bell, and there is only one pistil in the centre, more like a pestle than any we have so far seen.

Now, it is very probable that you have been wondering what the little flour bags are for, which are at the summits of the threads in the various flowers we have examined. The flour is to dust the top of the pistil. At the bottom of the pistil, in its club end, there are a number of small bodies which become seeds; but, before they will grow into seeds, the top of the pistil containing them has to be dusted with this flour.

These flour bags at the top of the threads are of all sorts of shapes, and the botanist calls them *anthers;* the flour in them he calls *pollen.*

Next time I will tell you more about the flowers, and the insects which visit them. But now that you have read my first three stories, try to answer these little questions upon them.

What is the great difference between a plant and a stone?
What is the difference between a snail and a plant?
Into how many groups are all the things in the world divided?
What are the names of these three groups?
What is the name of the Science which deals with the plants?
What do the plants breathe?
How do they breathe?
How do they obtain other food?
How do they drink?
What is the difference between ex-o-gens and en-do-gens?
How could we tell the difference without cutting the stem?
Do plants sleep?
Tell me two very common flowers which sleep?
What is the Ca-lyx of a flower?
What is the Co-rol-la?
What are the Sta-mens?
What are the Pis-tils?
What are the flour bags called, at the top of the Sta-mens?
What are the flour bags for?

PICKING THE COFFEE BERRIES.

CHATS ABOUT COMMON THINGS.

III.—ABOUT COFFEE.

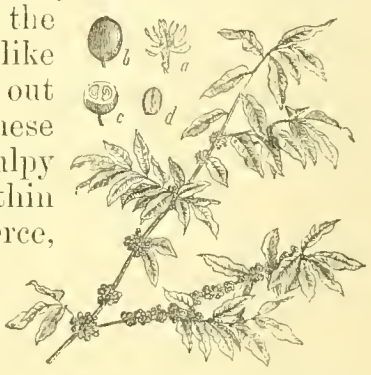
COFFEE PLANT.

WHEN you have seen Mamma make the coffee for breakfast in the morning, did you ever think where the dark brown powder came from, which made such a nice drink, after the boiling water had been poured on it? Perhaps you know that the coffee berries come from the shop, and that cook ground them into powder, or perhaps the powder was bought ready-ground. But where did the grocer get the coffee berries from? Well, now I will tell you. Coffee is prepared from the berries of a tree called the coffee plant, or coffee tree; it grows in some of the hot countries in the world, such as Arabia, Persia, Ceylon, Jamaica, and also in the island of Java, but the best coffee comes from Arabia.

Originally the coffee tree was found growing wild on the rocky hills of Caffa, a district of Abyssinia (a country in Africa), and thence it was taken to other countries; for people soon found that they liked the drink made from it very much.

There is an old story told of a goatherd who discovered how nice this drink was. He noticed that when his goats fed on the leaves of a certain tree—the coffee plant—they were always uncommonly lively and wakeful. Accordingly, he prepared a drink for himself, from the crushed leaves and berries of the plant, and found it had the same effect upon himself, and was very pleasant. He told his friends of it, and so the drink came gradually into use, and as it was first found in the place called Caffa, it came to be known as *Coffee*.

The coffee plant is a beautiful little tree or shrub, growing from ten to twenty feet high, according to the soil on which it is placed. It has a beautiful, smooth, dark, and shining leaf, something like those of the laurel, only thinner and more pointed: the leaves keep green all the year round. It has pretty white star-like blossoms, which grow in thick clusters out of the stem around the branches; these blossoms are succeeded by a red pulpy fruit, something like a cherry, within which are the coffee berries of commerce, two in each cherry; these berries are enclosed in a little parchment-like skin.



BRANCH OF COFFEE TREE.
Showing clusters of the fruit around the stem. *a*, the flower; *b*, the pulpy fruit enclosing the berries; *c*, the fruit cut open, showing the two berries; *d*, the berry.

When ripe the red fruit becomes a deep purple colour, and is sweet to the taste. In Arabia, where the coffee tree grows to perfection, the fruit is allowed to fall on mats placed under the trees, but in other countries the fruit is usually gathered as soon as ripe, and dried by being placed on mats in the sun.

The berries, after having been cleansed from the pulp, are again dried, and then packed for export to England, and the other countries in the world; for coffee is now used in almost every country, and is very much liked by almost everybody.

But before the coffee berries can be used, they must be roasted, to develop or bring out their delicious flavour and smell. The berries are then ground, and thus made fit for use. So when next you see coffee, just think what a great traveller it has been, and how many people have had to be busy before we can get it to drink.

JOHN LOVES TO PLAY WITH HIS HORSES AND HIS DOG.
JEAN AIME À JOUER AVEC SES CHEVAUX ET SON CHIEN.

EASY LESSONS IN FRENCH.

III.—THIRD LESSON; LEÇON TROISIEME.

LE, LA, L', LES—*THE.*

A DEAR LITTLE BOY.
UN CHER PETIT GARÇON.

I HAVE not brought the little French boy to dine with you this time. You must learn some more French words first.

So, are you ready? or, *Etes-vous prêt?* as the Frenchmen say.

Now, do you remember *un* and *une?* I am very glad that you do. They mean *one*, or *a;* and now I want you to learn what *the* is. *The* is Le, or La, according to the word which it precedes, and it always becomes L' before a word which commences with a vowel or silent *h*; it is *Les* in the plural. Now, try to learn these little words.

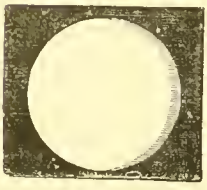
Le Singe,
The Ape.

The Wheat,
Le Blé.

Le Collet,
The Cape.

The Tea,
Le Thé.

La Lune,
The Moon.



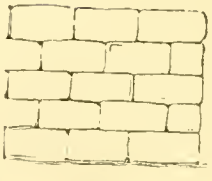
Du Jambon,
Some Ham.

La Cuiller,
The Spoon.

Des Conserves,
Some Jam.

The Sow,
La Truie.

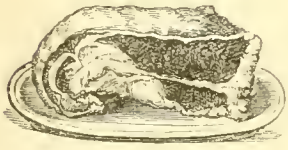
Le Mur,
The Wall.



The Rain,
La Pluie.

Le Bal,
The Ball.

LANGUAGE PICTURE LESSONS.—No. 3.

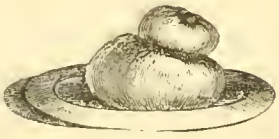


English—Beef.
French—Du Bœuf.
German—Rindfleisch.
Latin—Caro Bovina.

English—Mutton.
French—Du Mouton.
German—Hammelfleisch.
Latin—Caro Ovina.

English—A Plum Pudding.
French—Un Boudin aux raisins.
German—Ein Pflaumen-pudding.
Latin—Farcia Uvis.

English—Potatoes.
Fr.—Des pommes-de-terre.
German—Kartoffeln.
Latin—Bulborum solani.

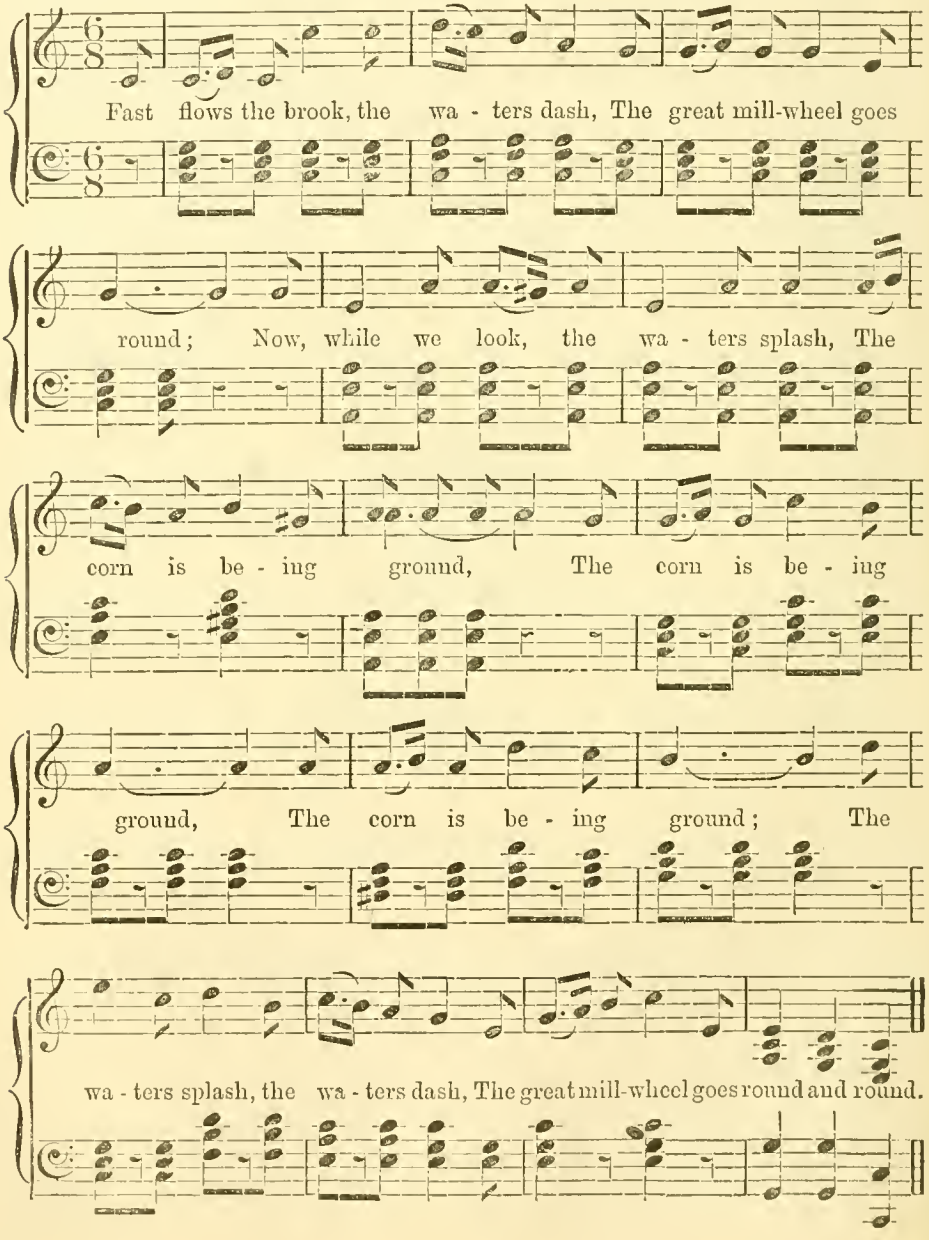


English—Bread.
French—Du Païn.
German—Brod.
Latin—Panis.

KINDERGARTEN GAMES AND SONGS.

IV.—THE MILL-WHEEL.

THE arrangement of this game is very easy. Eight children cross their left hands in the centre, and move round singing to the music of the piano, as follows :—


Fast flows the brook, the wa - ters dash, The great mill-wheel goes
round; Now, while we look, the wa - ters splash, The
corn is be - ing ground, The corn is be - ing
ground, The corn is be - ing ground; The
wa - ters splash, the wa - ters dash, The great mill-wheel goes round and round.

THE COWS LIKE THE WA-TER ON A HOT DAY.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

IV.—WORDS OF FOUR LETTERS.

AFTER reading the little sentences of words of three letters, Harry's mamma gave him some words of four letters to learn, like these:—

moon	hope	cake	call
soon	pope	make	fall
boon	mope	bake	tall

Harry soon learned them, so I am sure you will be able to do so. There are others on the following pages, all of which he learned quickly, three every day.

pine
mine
fine

rats
raps
rags

gate
gape
gain

pink
wink
link

deer
peer
seer

bull
full
pull

pigs
wigs
figs

calf
cast
cash

lark
park
mark

rook
took
nook

hens
tens
fens

fowl
howl
cowl

cart
tart
part

hand
land
band

lute
mute
jute

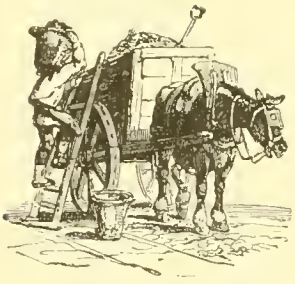
lamp
vamp
camp

pens mice nuts grid
wens rice huts grub
dens nice cuts grow

Jack coin rose robe
tack join pose rock
lack loin nose rack

rule nail bolt cone
mule tail dolt hone
yule fail jolt lone

boot shoe muff cage
loot shut luff sage
toot shun huff rage



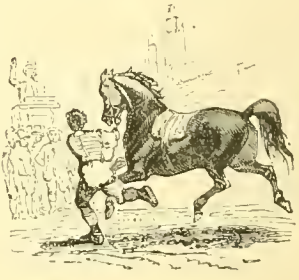
DUST
Dust
dust

SHOW
Show
show

RAFT
Raft
raft

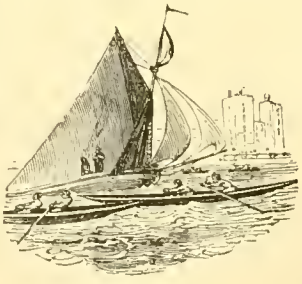
SEED
Seed
seed

MULE
Mule
mule



TROT
Trot
trot

FISH
Fish
fish



BOAT
Boat
boat

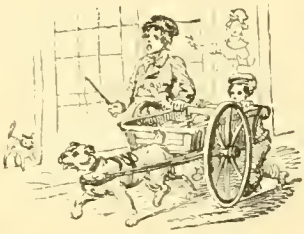
DRAY
Dray
dray

CORN
Corn
corn

HOPS
Hops
hops

BARN
Barn
barn

DAME
Dame
dame



CART
Cart
cart

MILL
Mill
mill

TREE
Tree
tree

RICK
Rick
rick

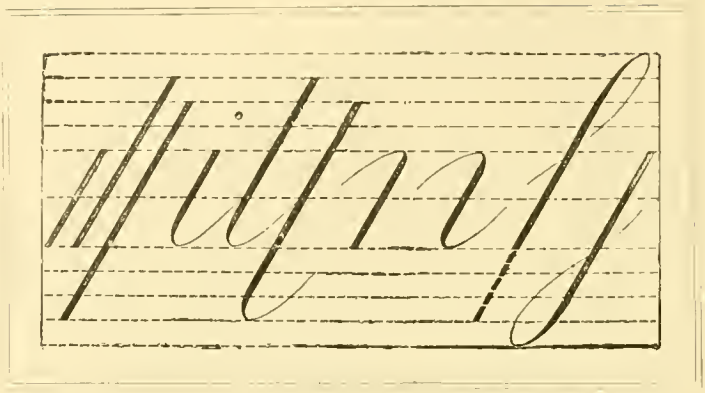
MILK
Milk
milk

This is a picture of a farm-yard. In the e-ven-ing, the cows, and the ducks, and the hens will go into the barn, but now they like the o-pen air, for it is a very fine day.

Here are men cut-ting rush-es, and ty-ing them in bun-dles. When they are dry, they will be used to make bas-kets and seats of chairs. The men do not mind the wet.

In the win-ter time, when the snow has fal-len, the sheep can-not find any food to eat, so the far-mer sends out food for them in a cart. The man has come to feed them.

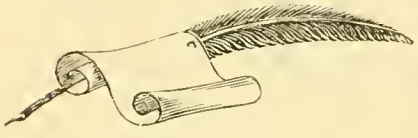
This is an-oth-er pic-ture of win-ter time. The pond is fro-zen, so that the man has to make a hole in the ice for the cows to get wa-ter. The ducks do not like the ice.



STROKES AND CURVES ABOVE AND BELOW THE LINE.

WRITING MADE EASY.

STROKES ABOVE AND BELOW THE LINE.



PEN AND PAPER.

IN teaching her little daughter to make letters above and below the line, Amy's mamma did not use the squares on the slate, as before. Lines were ruled straight across, and strokes made on, and then below the line, like this :—

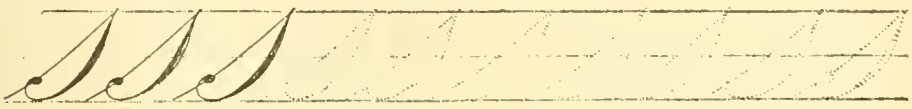
By practising this exercise frequently, Amy's hand became accustomed to making longer downward strokes than before, and she continued to practise until she was able to make them firmly and easily.

Then the exercise was varied, and strokes given her commencing above the line ; other forms, such as loops and curves, were added, and the lines were

lengthened, until exercises had been given in all the formations shown in the tablet at the top of the previous page.

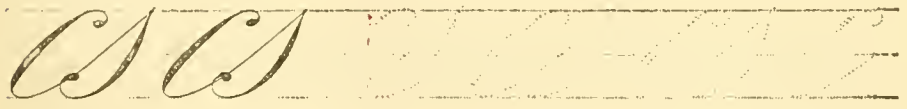
The various dotted lines ruled across were to enable her to make the letter by degrees, a little bit at a time, as shown in the lower part of the *f*. After a few lessons, Amy was able to do without so many lines, and could make even the longer lines without lifting the pen or pencil.

Then came the turn of the more difficult letter *s*. It was treated in the same way,—



the middle line showing where the outward curve should end, and the inner curve should begin.

Knowing well that the secret of success is to take pains at the beginning, and to practise thoroughly all the elementary forms, Amy's mamma made her little girl practise these letters every day, and day after day. As a good exercise for learning to use the pen without lifting it, this combination of letters was given her:



In practising all these exercises, great attention was paid to the position of the hand, so that the fingers could move with ease and freedom and the writing should not appear cramped.

After the *s* came the turn of the letter *r*. This was treated the same way, and Amy found it easy.

DRAG-GING HOME THE SNOW MAN.

Two little boys for a band of music; two for the strong little horses; and one for the driver—how many little boys in all? *Five.* And if the snow man were to fall and cover the little horses, how many would be left? *Three.*

PICTORIAL ARITHMETIC.

CHAPTER IV.

HOW TO COUNT UP TO A HUNDRED—AND A LITTLE MORE ABOUT SUBTRACTION.

TAKE ONE FINGER FROM FOUR, AND HOW MANY REMAIN? *THREE.*

I WONDER how often your little fingers have arranged the cubes into subtraction sums since last month, and whether your busy little brain has quite puzzled out what this second rule in arithmetic really is!

We have already worked several easy subtraction sums together; now let us go on to something a little more difficult.

First of all, I want to tell you something more

about counting. In the last lesson but one we counted up to 20. Now let us try and count up to a hundred. Put out 20 cubes (or apples) upon the table, thus:

20 apples.

Add another	apple and say *twenty-one*	21
Add a second	apple and say *twenty-two*	22
Add a third	apple and say *twenty-three*	23
Add a fourth	apple and say *twenty-four*	24
Add a fifth	apple and say *twenty-five*	25
Add a sixth	apple and say *twenty-six*	26
Add a seventh	apple and say *twenty-seven*	27
Add an eighth	apple and say *twenty-eight*	28
Add a ninth	apple and say *twenty-nine*	29
Add a tenth	apple and say *thirty*	30

Now you have added 10 cubes (or apples) to the 20 cubes, and you have upon the table thirty cubes.

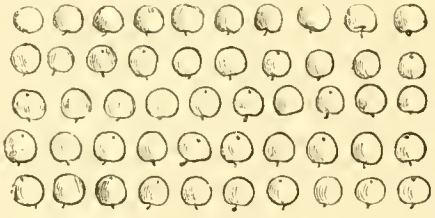
You see, we have three *tens* upon the table, and we put it down in figures, thus—30. The next to 30 is of course 31—thirty and one—and we count up to forty, or four tens, in the same way. The figures are, of course, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40.

Thus if you add 10 cubes to the 30 cubes, you have 40 cubes upon the table.

If you add 10 more cubes to the 40 cubes, you will have fifty, 50, upon the table. 41, 42, 43, 44, 45, 46, 47, 48, 49, 50.

Now 50 is half a hundred, and if you were to put just as many more cubes upon the table as you

already have there, you would have just a hundred —100, or *ten tens.* Remember this,—in 50 there are 5 tens. In a hundred there are 10 tens.



The figure 0 by itself stands for nothing, but when placed after the figure 1 it stands for ten, thus 10.

And 0 after 6 means six tens, or 60—sixty.

And 0 after 7 means seven tens, or 70—seventy.

And 0 after 8 means eight tens, or 80—eighty.

And 0 after 9 means nine tens, or 90—ninety.

And 0 after 10 means ten tens, or 100—one hundred.

From 50 to 100 the figures are:—

51	61	71	81	91
52	62	72	82	92
53	63	73	83	93
54	64	74	84	94
55	65	75	85	95
56	66	76	86	96
57	67	77	87	97
58	68	78	88	98
59	69	79	89	99
60	70	80	90	100

So you must remember that a figure, when it stands alone,—thus, 4,—is just four, and nothing else; when that 4 has a 0 placed after it, it represents 40—forty, or four tens, and when it has 1

or 2 placed after it, it represents forty-one, or forty-two, thus, 41, 42. When it has two noughts, 00, placed after it, thus, 400, it represents four hundred—400, in other words 40 tens.

A figure when it stands alone is called a *unit;* when two are placed together, the left-hand one is called a ten or tens, just as it happens to be one or more tens; and when three figures are placed together, the third on the left hand is called a hundred or hundreds. Thus we get units (1), tens (10), hundreds (100). Arrange your cubes into groups of tens, and count out a hundred, which will be 10 tens. Now for another sum,—

6 8 3
1 4 2

To work this sum begin at the right-hand end, and say, take two away from three. Do it with your cubes, or *think it out in you head.* What is the answer? *One.* Yes; put it down thus:—

6 8 3
1 4 2
1

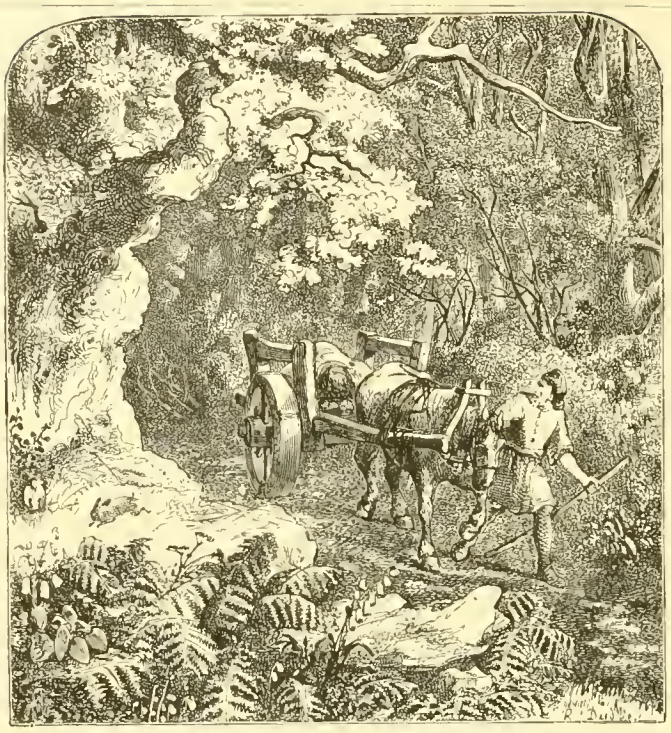
and go on to the next figure. This is to take 4—which, being the second figure, is really 4 tens or forty—away from 8, which is really 8 tens or eighty, and the answer is 4, thus,—

6 8 3
1 4 2
4 1

The last figure of your little subtraction sum is to take 1—which, being the third figure is 100 (one hundred)—away from 6—that is, six hundred. Now, how many will be left? Why, *Five,*—that is five hundred, of course. Put it down thus, in this way:

6 8 3
1 4 2
5 4 1

So if you had 683 cubes or apples, or anything else, upon the table, and you were to take 142 away from them, you would have 541—five hundred and forty-one—left.



BRINGING HOME THE BODY OF WILLIAM RUFUS.

TALES OF OTHER TIMES;

OR,

THE HISTORY OF ENGLAND IN EASY LESSONS.

VI.—WILLIAM THE CONQUEROR—*continued.*

ROBERT BEGGING HIS FATHER'S FORGIVENESS.

ALTHOUGH William was a great conqueror, he could not rule his own household well; his sons were very troublesome, and vexed him sorely. He had three sons—Robert, Henry, and William. Robert, the eldest, was surnamed Curt-hose, because he had short legs, and his brothers frequently quarrelled with him, and insulted him. Afterwards he rebelled against his father, and several battles were fought. On one occasion he wounded his father in the hand without knowing him, for the King wore a helmet which covered his face. But when he spoke, Robert knew his father's voice, and, throwing himself at his father's feet, entreated his forgiveness.

William the Conqueror died in 1087, from a bruise which he received while riding over the hot ashes of the town of Mante, which he had besieged and burned. He was buried at Caen.

VII.—WILLIAM RUFUS—THE FIRST CRUSADE.

After the death of William I., or William the Conqueror, his son William, surnamed Rufus because of his red hair, became King of England, and Robert became Duke of Normandy. But after a time William obtained possession of his brother's dukedom, and thus became sovereign of both countries, as his father was before him.

William Rufus was a bad man, and even more tyrannical and cruel than his father. He made the laws against hunting even more severe than they were in his father's time, and forbade the noblemen to hunt without his leave. This displeased them so much that they formed a plot to kill him, but it was discovered, and some of the leaders were put in prison.

During the reign of William Rufus, the Pope of Rome appealed to all good Christians who could fight, to go to the Holy Land and make war against the Mahomedans, who then possessed the country. In those days many Christians used to journey there to see the places where Christ lived and died, and the Mahomedans ill-used them when there. So the Pope, who then had more power than all the kings, said the Christians ought to fight against the Mahomedans. And a very religious man, called Peter the Hermit, went about from one country to another stirring up and exciting the people, until great numbers of men were collected together to fight against the Mahomedans. This was called a *crusade* or *croisade*, because their banners bore the ensign of the cross. We think now that the better way would be to tell those people who do not believe in Christ, how good He was, and to win them to Him by telling of His love; but in those days most men believed more in fighting.

But although many men went, and some victories were won, yet no lasting good seems to have been done, though these wars lasted for nearly 200 years. Robert, Duke of Normandy, was one of the first Crusaders, and to obtain money to go to the Holy Wars and pay his fighting men he borrowed a large

sum from Rufus, in return for which he pledged his Dukedom of Normandy, and it was in this way that William became possessed of it, as I told you just now.

Some little time after this, in the year 1100, William Rufus was killed while hunting in the New Forest. Some people say he was killed by accident, and some that he was the victim of a plot. All that seems known for certain is, that one day when hunting with some noblemen in the New Forest the party became gradually separated, in the excitement of the chase, and

PETER THE HERMIT PREACHING THE FIRST CRUSADE.

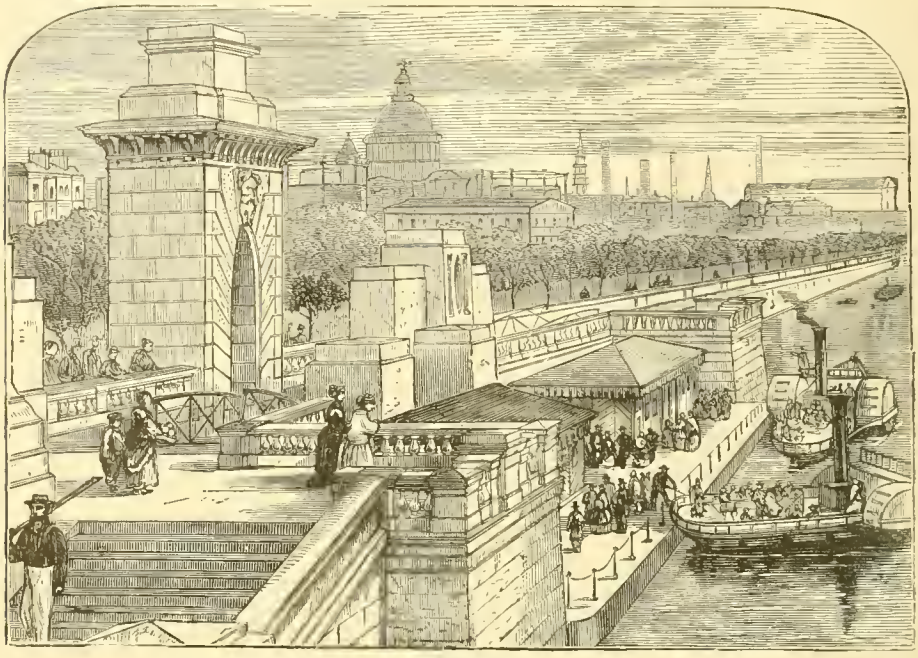
at length it was found the King was missing. At last, when it was growing late, and the red rays of the sunset were glancing through the trees, he was found lying dead, with a broken arrow sticking in his breast.

Some say that Walter Tyrrel shot him: that his arrow, aimed at a stag, hit a tree and glancing off struck the King and killed him. He was borne in a charcoal-burner's cart to Winchester (as you see in the picture on page 158), and buried in the cathedral there without any religious service.

VIII.—HENRY I., SURNAMED BEAUCLERK—STEPHEN.

After the death of William Rufus his brother Henry became king. He was called *Beau Clerk*, which means *fine scholar*, because he was a learned man. He was a much better king than either William the Conqueror or William Rufus. He altered the very severe laws against hunting, and he permitted the citizens of London to hunt in Epping Forest, which then came almost up to the city itself. When Robert returned from Palestine, he and Henry fought a battle at Tinchebrai, in the year 1106; Robert was defeated and taken captive. For thirty years he was kept in prison, and died at last at Cardiff Castle. Henry suffered terrible grief in the loss of his son and daughter, who were both drowned when young. They were crossing from Normandy to England in a vessel called "The White Ship," when suddenly she struck on a rock, in the Race of Alderney, and went to pieces. Henry's son, William, might have been saved, for he had got into a boat, but when he went back for his sister so many others leaped into the little skiff that she was swamped, and none escaped to tell the sad tale but a poor butcher of Rouen. It is said that Henry was so affected that he never smiled again.

When King Canute died, who reigned after him?
Who reigned after them?
Why was he called "The Confessor"?
Who succeeded him?
Whose son was Harold?
Who invaded Yorkshire?
What battle did he fight with the Norwegians?
What reply did he give to the Norwegian king?
Who gained the victory?
What bad news came directly after the battle?
What did Harold do?
Was another battle fought? and where?
Who was victorious?
What great man was killed?
Was any further resistance made?
When and where was William crowned?
How long did the struggle continue?
What was the Camp of Refuge?
Who founded it?
How did the Normans conquer it at last?
Were the Normans more civilised than their opponents?
What did they build?
What were the Domesday Books?
What was the Curfew Bell?
What were the Forest Laws?
Where is the New Forest?
From what great trouble did William the Conqueror suffer?
How many sons had he?
Where, and when, did he die?
Where was he buried?
Who reigned after him?
Why was he called Rufus?
Was he a good man?
What great historical event took place in his reign?
What prominent personage took part in the First Crusade?
How did Rufus die?
Who succeeded him?
Why was he called Beauclerk?
Was he a better king than his father and brother?
From what great grief did Henry suffer?

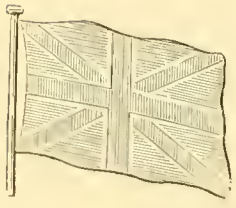


LONDON.

(Showing Steamboats on the Thames, Steamboat Pier, the Thames Embankment, St. Paul's Cathedral, &c.)

SIMPLE LESSONS IN GEOGRAPHY.

III.—ENGLAND AND WALES.



THE "UNION JACK," THE FLAG OF OLD ENGLAND.

IF you look on the map of the world, you will see two small islands on the left side of Europe, towards the top. They are called the British Isles, or sometimes Great Britain and Ireland.

The larger of the two is divided into three parts—England, Scotland, and Wales; and you must know that although a very long time ago there were different kings for Scotland and Ireland, now, England, Wales, Scotland, and Ireland are all under one sovereign, our good Queen Victoria, and one Parliament, and they form one country, and we who live in it form one people, called the British Nation. In this chapter I have to tell you about England and Wales; and so that you may understand better what I have written, I have had a map drawn to show you what the shape of the country is like, and where the principal rivers, and towns, and mountains are.

If you look at the map you will see that on the right-hand or eastern side of England is the North Sea; sometimes this is called the German Ocean. Then there is the narrow strip of sea called the Straits of Dover, between France and England. And at the bottom part, or the south side, is more sea, called the English or British Channel. And on the left or western side is sea again; this is called the Irish Sea or St. George's Channel: while on the top is Scotland. The greatest length of England, from the river Tweed to the south coast, is about 400 miles; and the greatest width, say from the coast by the mouth of the Thames to Land's End, is 320 miles. England is divided into 40 districts, called counties; Wales has 12 counties. You will learn the names of these when you are older, but you can remember now that the capital city of England, and of Great Britain and Ireland, is London; it is situated on the river Thames, and in the county of Middlesex.

STRAITS OF DOVER, BETWEEN ENGLAND AND FRANCE.

The Thames is the principal river in England. It is broad at its mouth, where it joins the sea, and very many ships can come and go, to and from London; but it gets much narrower further inland, and it is very, very beautiful. It has three other rivers running into it—the Kennet, the Lea, and the Medway. The other great rivers of England are the Severn, the Trent, the Ouse, the Humber, the Dee, the Tees, the Wear, and the Tyne. You should look them all out on the map, and see where they are.

SNOWDON, THE HIGHEST MOUNTAIN IN ENGLAND AND WALES. (Height, 3,590 feet.)

England has not many high mountains. There are three, the names of which you should remember —Helvellyn, Skiddaw, and Scawfell. Snowdon, the highest

mountain in England and Wales, is in the northern part of Wales. The principal ranges of mountains are the Cambrian or Welsh Range, the Devon and Cornwall Hills, the North and South Downs, the Mendip, the Malvern and the Cotswold Hills, and the Pennine Range.

The principal Capes, for which you must look, are Land's End, Lizard Point, Start Point, Portland Bill, Beachy Head, Dunge Ness, South Foreland, North Foreland, Spurn Head, Flamborough Head, Strumble Head, and St. David's Head.

Now let us look at the Towns. Look, first, at London; it is the very largest city in the whole world. Look, next, at Liverpool, on the river Mersey, a great place for shipping; and look at Manchester, where there are very, very big factories for making American cotton into calico.

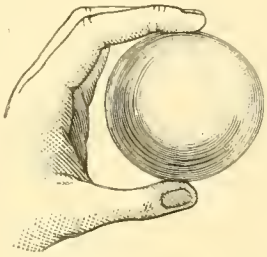
And now look at Newcastle. What do you think comes from Newcastle? Coals. Not far off is Sunderland, where they make ships. And what do you think comes from Durham? Mustard. Durham has also a very fine cathedral. So have also Canterbury and York. At Sheffield they make knives, and forks, and scissors, and swords—all things called "cutlery." At Derby, they twist the American cotton into cotton for sewing, and for darning, and for knitting and crotchet; and they wind it on reels, or into skeins, to let it be handy. At Worcester, the people make beautiful fine china tea services and dinner services. At Witney, they make blankets. All along by Cardiff and Swansea, there are many large ships.

Next time I will tell you about more of the English towns, but now try to answer these few Questions:—

Where are the British Isles?
What other names are they known by?
What four divisions are there in the British Isles?
Were they once different countries?
Tell me the names of the seas which are around England and Wales.
What is the greatest length of England?
What is the greatest breadth?
What is the capital city?
Where is it?
What is the principal river?
Mention some of the others, and point them out on the map.
Mention some of the principal mountains and mountain ranges, and point them out on the map.
Mention some of the principal capes, and point them out on the map.
Mention some of the principal towns: point them out on the map, and say what they are noted for, or what is made there.

Map of
ENGLAND & WALES
SCOTLAND
BERWICK
R. Tweed
NORTH SEA
NEWCASTLE
SUNDERLAND
R. Tyne
DURHAM
R. Tees
Solway Firth
I. of Man
Flamborough Head
LANCASTER
YORK
Morecambe Bay
IRISH SEA
R. Humber
GERMAN OCEAN
Spurn Hd
MANCHESTER
HOLYHEAD
I. of Anglesea
LIVERPOOL
SHEFFIELD
R. Trent
LINCOLN
BANGOR
Menai Strait
Snowdon
R. Dee
R. Witham
The Wash
STAFFORD
Cardigan Bay
BIRMINGHAM
LEICESTER
R. Yare
YARMOUTH
St. GEORGE'S CHANNEL
WORCESTER
NORTHAMPTON
R. Ouse
CAMBRIDGE
Strumble Hd
CARDIGAN
R. Stour
HARWICH
St. Bride's B.
GLOUCESTER
OXFORD
R. Severn
Worms Hd
CARDIFF
The Ross
LONDON
Bristol Channel
BRISTOL
CANTERBURY
Lundy I.
Straits of Dover
SOUTHAMPTON
EXETER
PORTSMOUTH
Beachy Hd
I. of Wight
PLYMOUTH
Portland Bill
Start Pt
ENGLISH CHANNEL
Lizard Pt
Land's End
Alderney
Guernsey
Jersey
FRANCE

GEOGRAPHICAL NURSERY RHYMES.



The Earth is made up of
Water and Land,

Its shape like the Orange
held in my hand.

A Rock, a Continent, a Field,
the Sand,

A Mount, a range of Hills,—
are all called Land.

And so are an Island, an
Isthmus, a Cape,

As well as Peninsula—such
a queer shape!

To let us get ashore, the coast
has Ports, or gates;

The narrow seas between two
countries' shores are Straits.

Those Mountains nearest to the skies,

Are where the snow for ever lies.

The Land goes in and out the whole way round,

In Bay, or Gulf, or Inlet, Cove, or Sound.

Rivers wind through the land on their way to the sea,

And as they approach it, the wider they will be.

Vast and wide is the mighty Ocean,

Salt to the taste, and ever in motion.

A LITTLE SONG.

MUSIC AND SINGING.

NOTES.

PRINTED MUSIC, SHOWING THE NOTES.

LAST month I promised to tell you what notes were. Have you ever seen what is called a "piece of music?" If so, you have no doubt noticed that it is made up of lines, spaces, and round—generally black—dots.

These black dots are called notes. Here is a picture of what is called printed music, and, you see, it is made up of lines, spaces, and notes.

Let us begin with the notes on the lines in the treble. These are E, G, B, D, F. Here they are—

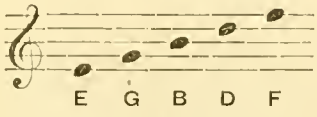


Fig. 2. NOTES IN THE TREBLE IN THE PRINTED MUSIC.

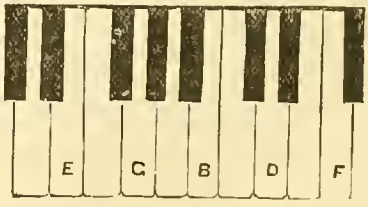


Fig. 3. NOTES ON THE PIANO.

Each of these notes represents a bird on the piano. The first line E, represents the white bird E, which lies just a little bit to the left of the

middle of the piano-cage; the next line G, is the next white bird but one to E. It is two birds higher, which means two birds nearer the treble—or to the *right*. Does it not? The third line is B, two birds higher still; the fourth line D, two birds higher than B; while F, the fifth line, represents the white bird lying two birds to the right of D. It is the highest note within the treble stave, for all those notes which lie within spaces or upon lines are said to be *within the stave*.

Now for the spaces in the treble. These are four in number, and lie between the lines. Their names are very easy to remember, because beginning from the bottom space to the top the four letters spell F, A, C, E. Here are the spaces—

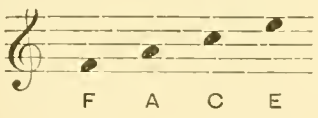


Fig. 4. SPACES IN THE TREBLE.

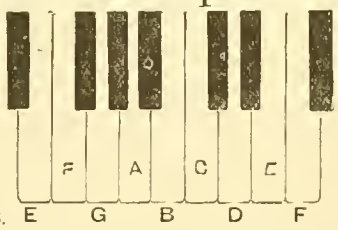


Fig. 5.

If you look at pictures 3 and 5, you will have no trouble in finding the birds on the piano, which are represented by the notes in the spaces and on the lines.

You see the notes on the lines and in the spaces within the treble stave include the following birds, which are nine in number:—

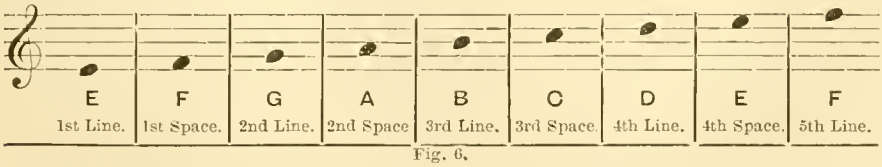


Fig. 6.

Remember to learn off by heart the *five* lines in

the treble, and the *four* spaces, and never forget where they lie on the piano.

We must now turn our attention to the bass.

The notes on the lines in the bass are G, B, D, F, A.

I hope you have not forgotten that 𝄞 is the sign of the treble, and 𝄢 is the sign of the bass.

Here are the notes on the lines in the 𝄢:

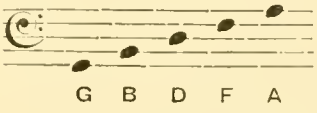


Fig. 7. LINES IN THE BASS.

Fig. 8.

To find the birds which these notes represent, you must begin with the lowest and first line, which is G, and which lies just twelve birds lower down in the cage than the first line in the treble, which you know is E. The second line in the bass is B. This is, of course, two birds higher than G; the third line D is two birds higher than B; the fourth line F, two birds higher than D; and A, the fifth and last line, is the highest of all, being two birds higher than F.

The spaces in the bass are four in number, and consist of the notes A, C, E, G. Here they are—

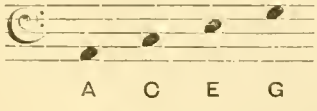


Fig. 9. SPACES IN THE BASS.

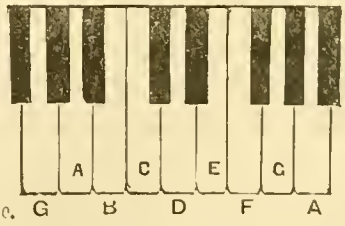


Fig. 10. G B D F A

You will have no difficulty in finding the birds

represented by the spaces in the bass, because of course they lie just in between the lines. Thus the space A between the lines G and B ; the space C between the lines B and D, and so on. Here is a table of the whole ; I should advise you to learn it by heart.

Lines in the Treble	E		G		B		D		F
Spaces in the Treble		F		A		C		E	
Lines in the Bass	G		B		D		F		A
Spaces in the Bass		A		C		E		G	

Now I am sure you will be able to answer these easy questions :—

What are the names of the white birds in the piano-cage ?
Where are A, C, D, and G ?
What are the names of the four white birds which have no black bird between them ?
How many names has each black bird ?
What are the two names of the black bird which lies between the white birds F and G ?
Find C flat in the piano-cage.
Why is it a white note ?
How many black birds are there, and how are they divided ?
Does a flat lie to the right or left of a white bird ?
Which is the treble part of the piano ?
Which is the bass ?
How many lines and spaces are there in printed music ?
What do you call those black dots ? What do they represent ?
Tell me the notes on the lines in the treble and bass.
Tell me the notes in the spaces in the treble and bass.
What is meant by the notes within the stave ?

If you can answer all these questions correctly, the kind teacher who has been reading these chapters to you will not think her little hearers have been inattentive. Next time, I have plenty more to tell you about notes.

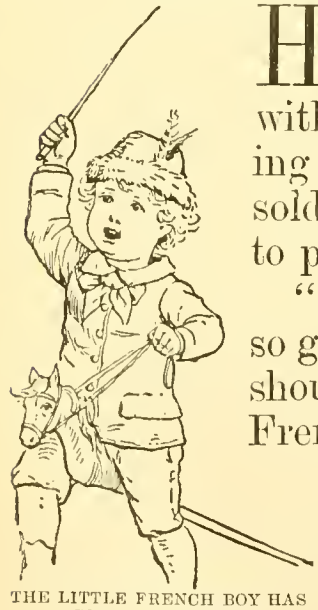
In the meantime you should practise a little every day, until you can find out all the notes, and call them by their names.

THE LITTLE FRENCH BOYS LOVE TO PLAY AT SOLDIERS.
LES PETITS FRANÇAIS AIMENT À JOUER AUX SOLDATS.

EASY LESSONS IN FRENCH.

FOURTH LESSON; QUATRIÈME LEÇON.

THE LITTLE FRENCH BOY COMES TO DINNER.



THE LITTLE FRENCH BOY HAS COME TO DINNER.
LE PETIT FRANÇAIS EST VENU A DINER.

HERE is the little French boy again; he has come to dine with you this time. He comes carrying a sword and riding a horse, like a soldier, for the little French boys love to play at soldiers sometimes.

"Ah, dear little French boy, we are so glad to see you," you say. But I should like to hear you say that in French. Say after me:

"Ah, cher petit Francais, nous sommes bien contents de vous voir!"

That is right. Now say, in French, "Take a chair; come near to the table; we are hungry; we will dine."

"*Prenez une chaise; approchez-vous de la table; nous avons faim; nous dinerons.*"

That is right, also. Very good. Now we will say to the French boy, "Take the fork," *Prenez la fourchette;* and, "Take the spoon," *Prenez la cuiller;* and we will say too, "But do not touch the knife, for it will hurt you," *Mais ne touchez pas au couteau, cela vous fera mal.*

You see, the French boy is very obedient. He does just what you say. Say to him now, "Pass the plate, it is my sister's," *Passez l'assiette, elle est à ma sœur.*

Say next, "Here is your plate; will you have some meat?" *Voici votre assiette; voulez-vous de la viande?*

And, "Will you have some gravy?" *Voulez-vous du jus?*

And, "Will you have some fat, just a little bit?" *Voulez-vous du gras, un tres-petit morceau?*

But hark! The little French boy is speaking. Listen to him. He says, *Non, non, non! Je n'aime pas le gras!* and he means, "No, no, no, I do not like fat!"

Then he says, *S'il vous plaît, donnez-moi du pain;* "If you please, give me some bread." Then he says, *Je voudrais avoir de la moutarde s'il y en a;* "I would like to have some mustard, if there is any."

And now that nurse puts a little mustard on his plate, he cries *Assez, assez*, which means "Enough! enough;" and he holds up his little hands to stop her. But, listen what he says, now nurse has given him a piece of bread. He cries *Encore, encore!*

which means, "Again," or "Some more;" for all French people eat a great deal of bread at dinner, and this little tiny Frenchman is the same as the rest.

Go on, now, talking to him. Say, *Voulez-vous des pommes de terre?* "Will you have some potatoes?" And, "Here is a lettuce, will you have a little?" *Voici une laitue, en voulez-vous?* And, "I drink water, do you?" *Moi, je bois de l'eau, et vous?*

And now make him laugh. Say,

Un navet, un chou,
Et chacun pour vous.

which means,

A turnip, a cabbage,
And each one for you.

Du poivre et du sel,
Pour lui et pour elle:

which means,

Some pepper and salt,
For him and for her.

You can now tell the little boy what you are eating. You can say, "I am eating fish, I like fish;" *Je mange du poisson, j'aime le poisson.* You can say, "My sister is eating mutton, roast mutton;" *Ma sœur mange du mouton, du mouton rôti.* "But my dear little baby-brother eats gravy and bread-crumbs;" *Mais mon cher petit frère-bébé mange du jus et de la mie.*

Ha, the meat is going away, and here comes the pudding. Say so to your little visitor. Say, *La viande s'en va, et voici le boudin.* Say, "There are two puddings," *Il y a deux boudins.* No, say, "I am wrong, I see there are three puddings;" *Je me trompe, je vois qu'il y a trois boudins.* Hurrah! *Bravo!*

I will tell you about the puddings next time, when I hope you will have learned all these sentences.

THE ANGEL TELLS ABRAHAM NOT TO OFFER UP ISAAC.

SCRIPTURE STORIES.

CHAPTER IV.

THE TRIAL OF ABRAHAM'S FAITH.

ABRAHAM ABOUT TO SACRIFICE ISAAC.

A LONG time after Noah was saved in the Ark, as I told you in my last story, there lived a very good man whose name was Abraham. He had a good wife whose name was Sarah. Abraham was a rich man, and had a great number of flocks of sheep and herds of cattle. There was only one thing that Abraham and his wife wanted to make them perfectly happy, and this was a little boy. Abraham prayed to God to send him a child, and God heard his prayer, and sent him a little

son, at the same time promising that he should grow up to be a great and good man.

Abraham and Sarah loved their little boy very much, and took the greatest care of him. They called his name Isaac. When Isaac had almost reached manhood, and was the pride and joy of his parents, the voice of God came to Abraham, commanding him to take Isaac and offer him up as a sacrifice to Him.

Just think of Abraham's despair—to be commanded to sacrifice the son whom he loved: surely a loving father never had a harder task to perform. Abraham did not dare to disobey God, so one morning he rose up early and took Isaac with him to the mountain of Moriah, where he prepared the altar of wood, upon which he laid Isaac and bound him with cords. Then, taking a sharp knife in his hand, he was just going to slay his son, when "the angel of the Lord called unto him out of heaven" and told him not to harm his son, for God had provided an offering for Himself. So Abraham gladly unbound Isaac, and upon looking round he saw a ram caught in the thicket, and this he offered up to God in the place of his son.

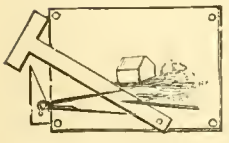
Abraham and Isaac went back to their home again, each thankful to the good God who is ever kind, even when He appears unkind, and Isaac lived to be a great and good man, as God had promised.

By this story I want you to learn that we must keep on trusting God, and trying to do right, no matter how hard it is, and God will make it come right in the end.

DICK'S FIRST ATTEMPTS AT DRAWING.
(He will do better by and by, after studying the lessons in the "Instructor.")

DRAWING LESSONS FOR THE YOUNG.

CHAPTER I.



DRAWING MATERIALS.

ALMOST everybody would like to be able to draw, and yet how many people cannot do anything that will satisfy even themselves. They say they have never learnt, and seem afraid to begin.

Now, no harm happens to anyone if he tries and does not succeed; in fact, everyone who has ever learned to draw must at some time have made a great many failures, and no man ever was a great artist who did not fail many times before he succeeded; and even when he did succeed in other people's opinions, and to a certain extent in his own too, he could

almost always find some fault with his work and feel that he might have done it better. So begin, and if you fail don't be disheartened.

Drawing and painting give one a new sense. Anyone who can draw looks at things in an entirely new way, and sees something quite different from and beyond what people in general see, for he sees what things look like, whereas other people see only what things are. If you want to learn the difference between what an artist sees and what other people see, look at a Chinaman's picture and a proper drawing of the same object. The Chinaman draws what he knows to be there: a square box he makes quite square; he puts in all the leaves of a tree of equal size, and does other things of this kind, whereas an artist draws the square box as it *looks*, the sides going away from him smaller and differently shaped; the leaves of the trees, some turned sideways, some only lines, and a great many not distinctly marked at all; and yet when you look at his picture you imagine it is all there, whereas the Chinaman's picture is confused and you cannot understand it. In order to draw, then, you must learn *to see*. This is the first thing, and this is what will take almost all your time. You would think that it was your fingers that wanted practice to enable you to draw, but that part of the business is very easy; anybody can make a stroke, light or dark, and most people can make a straight stroke; the fingers will make the stroke, if the eye will only tell them what sort of a stroke to make. But then generally the eye does not know what sort of a stroke it wants until it has tried, and it has found out that the stroke it thought would be right only makes a sort of Chinaman's picture, showing things turned up so that you see the insides or the back, or some part which is round the corner, so that you cannot see it. Consequently you must begin and try to draw, and you will find out by degrees where

A CHINESE PICTURE.

you make mistakes, and then you will be able to do better next time.

But you may save yourself a good deal of trouble if you will look well at a thing first before you begin. You will then see that what you know to be square looks really quite askew, and what you know to be a long curved line looks very short and nearly straight, and so on. This is why people generally begin with copying drawings; it gets them accustomed to drawing things differently from what they know them to be. Besides, with a copy they can find out by measuring, and in other ways, how the lines run, which you cannot do so easily when you draw from the things themselves. You will often hear that some great artist was originally only a poor boy, and he taught himself to draw; he had no copies, he had no masters, but in spite of all these difficulties he taught himself to produce just what he could see around him. How did he do this? Simply by using his eyes, and with any material trying to reproduce what he thought he saw, until he really did represent what other people could recognise. Of course, it is a great advantage to any one to get help from some one who has gone through the very difficulties which he encounters—the time of learning is shortened, and mistakes need not be repeated, but perseverance will almost make up for other's experience; and is worth the additional cost, for it makes so much more impression.

CHAPTER II.

The first thing in drawing is to be able to make a line exactly as you wish it to appear. This is purely a matter of feeling and of practice. We said in the former chapter that it was the eye rather than the hand that wants teaching, but this is a matter of the hand principally. People often say that they cannot draw a straight stroke. Very likely not; a straight stroke is difficult to draw, and the longer it has to be, the more difficult it is. But this is the kind of thing that is easy to practise; any piece of paper will do, and any spare time may be filled up in drawing a series of straight strokes one-third of an inch long, then half an inch, and then longer by degrees. These strokes should be all the same

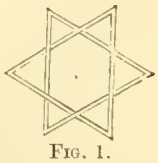


Fig. 1.

thickness and depth, as well as length. The length may be measured by drawing the lines on ruled paper between two lines. The thickness is, to a certain extent, dependent upon the point of the pencil. If the pencil is cut to a fairly good point, not too sharp, and not left rough at the end, the same kind of line may be drawn for a considerable length of time by turning the pencil slightly in the fingers as the point begins to wear, and so by twisting it completely round the wearing on the one side makes up for the flattening on the other. A series of even strokes of the same thickness gives a notion of flatness. Evenness of depth is to be acquired by equal pressure being applied, and this is managed by holding the pencil lightly between the thumb and first fingers, not firmly as a pen, but more loosely and further from the point, and resting the arm comfortably, leaving the wrist free, but not leaning with any weight on the supporting fingers, as you would in writing. All this requires practice, just such practice as you would give to playing over your scales if you were learning music. How many hours do you spend over those scales? Take half or a quarter the time to practising lines, and you will soon obtain a complete mastery over them, so as to make them thick or thin, light or dark as you will.

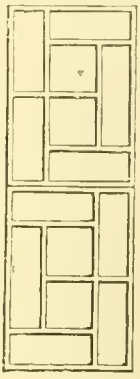


Fig. 2.

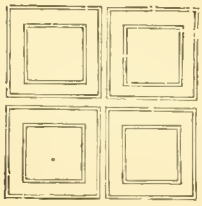


Fig. 3.

Then you must try other lines than straight ones. You cannot draw many pretty things with straight lines only. Try some very simple curved line, and master that just in the same way, attending to the length, the amount and direction of the curve, and not forgetting the thickness and depth, as before. Keep these lines as light as you well can to make them distinct. A line that is marked hard into the paper can never look well.

I have before me now a wood-pigeon's feather that I picked up in one of my last country walks. This would be a beautiful thing to draw. It would suit everybody. A beginner might find its general lines simple enough not to confuse him, and a great artist would find beauty and delicacy enough in it to employ all his powers. Let us try the simple lines first. There is one

beautiful curved stem down the centre. This is not straight, it is not part of a circle; you might hunt all day over some of those ingenious combinations of curves cut out in wood to help lazy people to draw curves, without finding the gently graduated curve you may see here. It begins almost straight, and gradually curves more and more until it turns up into the feather itself. Then, there are two sides to this stem, which begin a little way off one another, and imperceptibly approach until the same pencil line will represent both. You may draw this pair of lines very often before you get them to be quite accurate, like the delicate feather you have before you, and when you have done this, turn the feather round a little, then the curve will be altogether different. Try it again, and get it perfect this way. So you may get much practice out of a very simple object.

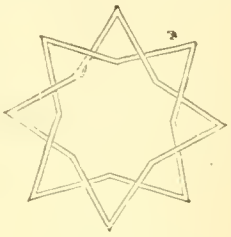


Fig. 4.

Now, perhaps you will be surprised that I tell you to take a feather and draw from it, instead of getting a drawing-copy and beginning with that. The truth is, that you will be learning two things at once by drawing *from the object:* you will be learning to see what is before you, at the same time that you are practising your fingers, and your eyes too, in making curved lines. If you try these things your drawings will be more interesting to you than if you only copied what somebody had done much better before you; and besides, what is it you want to learn—to repeat what has been done tolerably well before, or to take down what you yourself have seen and wish to recall to yourself and to others? Surely the latter. So begin by drawing from leaves, flowers, feathers, from simple things, in which you are not confused with many or very different kinds of lines.

Fig. 5.

Of course, if you want to practise straight lines much before you begin some of the simpler curves, you must take some copies of patterns made of straight lines, such as figures 1, 2, 3, 4, and 5; but I think you will soon like to try the feathers and the leaves, and you will not find them really more difficult to do.

THE SURFACE OF THE MOON.

[The lower part of the picture shows what the surface of the moon is like, and the round ball above is the earth as it would appear from the moon.]

STORIES OF THE STARS.

II.—A CHAT ABOUT THE MOON.

CRESCENT MOON.
Seen through a telescope.

IN my last story I told you something about the stars and planets, and some of the differences between them. This time I have to tell you about the moon. It is something like the planets, because it *does not shine by its own light.*

But you say, "It looks very bright sometimes." Yes, so it does; but the bright part that you see is the part on which the sun shines, and where this sunlight does not fall the moon is invisible to us. So you must remember that the moonlight is the light that the moon borrows from the sun. That is one thing you must remember about the moon. Now, here is something else.

When you look at the moon, it does not appear much larger to you than a gas globe; but that is because it is so far away.

It is really very large (but not so large as the earth), being no less than two thousand one hundred and sixty miles in diameter—that is, from one side to the other. The moon is about two hundred and thirty-eight thousand miles away from the earth. Is not that a long way? If you let a ball of cotton fall on the ground it would not take long to fall, because the floor is not far from your hand; but if the moon were to fall on the earth it would take nearly five whole days and nights to fall, the distance is so great. The moon, therefore, is very far away from us, but, far as it is, it is nearer to us than any other heavenly body.

You have noticed that the moon presents a different appearance to us at different times. Sometimes it appears quite round, like a silver shield, at other times it resembles a crescent.

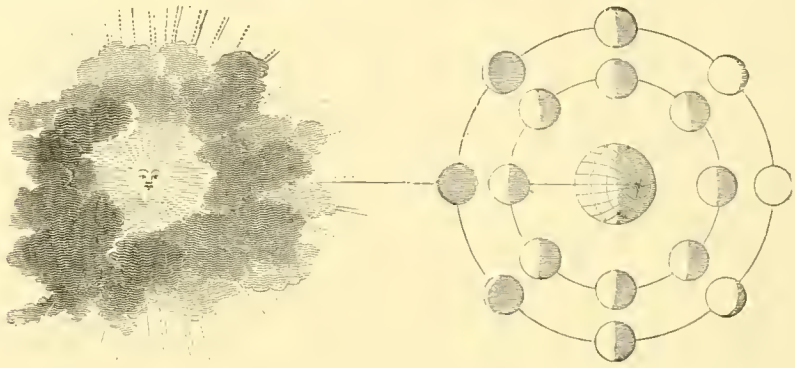
Now, I will tell you the reason of this. In the first place, you must understand that the moon goes round the earth, just as I told you before that the earth revolves round the sun.

Suppose one of you children stood out on the floor, and then another one stood a little way from him, and then commenced to walk round him. That is something like the moon going round the earth, only it takes about twenty-nine and a half days to perform its journey instead of a minute or two you take to walk round.

Now, in its journey round the earth, the moon is constantly altering its position, and therefore the sun shines on different parts of it. The sun always shines on half of it, but *of that half* only a portion is at times visible to us.

Let us make a little experiment. If you put a lamp on the table, and then stood out on the floor away from it, and your brother, taking an orange in his hand, walked round you, and you turned round so as to look at the orange, that would give you some idea of the reason why the moon apparently alters her form to us, because you would find that you could not always see so much of the part that the sun or the lamp shone upon. Here is a little picture which will, perhaps, show you this more clearly. The round striped ball in the centre represents the earth, the figures in the inner circle show the moon at different parts of her path round the sun, while the *outer* circle shows how she appears to us when in that position. Thus, you see that when the moon is between us and the sun

we cannot see any part of her at all, and when she is on the opposite side she looks like a complete circle of light, and it is then what we call a full moon. Perhaps you will understand



PICTURE SHOWING THE CAUSE OF THE DIFFERENT APPEARANCE OF THE MOON.

it better when I tell you in another story about the earth's position among the stars.

But you will like to know something of what the moon is like. If you look at it some night when it is full, its surface appears curiously marked, and some portions darker than the others. People long ago thought these darker portions were seas, and they gave them curious names—such as the "Sea of Serenity," the "Sea of Storms," &c. But it is now known that they are not seas. The moon's surface is all dry, barren, and rocky. There is no water, no nice green grass, no trees, no living creature on the moon, but silent and lonely she whirls her way through space, circling for ever round the earth, obedient to the Almighty Hand which first launched her forth. Some of the mountains are built round a valley in a circle, so that it is like a plain with a very high ring round it. Some are like burning mountains that have burned themselves out. Perhaps you would like to know what the moon looked like when seen through a good telescope. A gentleman—Dr. Scoresby—who saw the moon through a very large telescope, says that "it appeared like a globe of molten silver, and every object as high as a very high church tower, such as that of York Minster, might have been seen. But though there were numbers of mountains and hills there were no buildings. There was no sign of any living thing, and the general appearance was like that of one vast ruin of

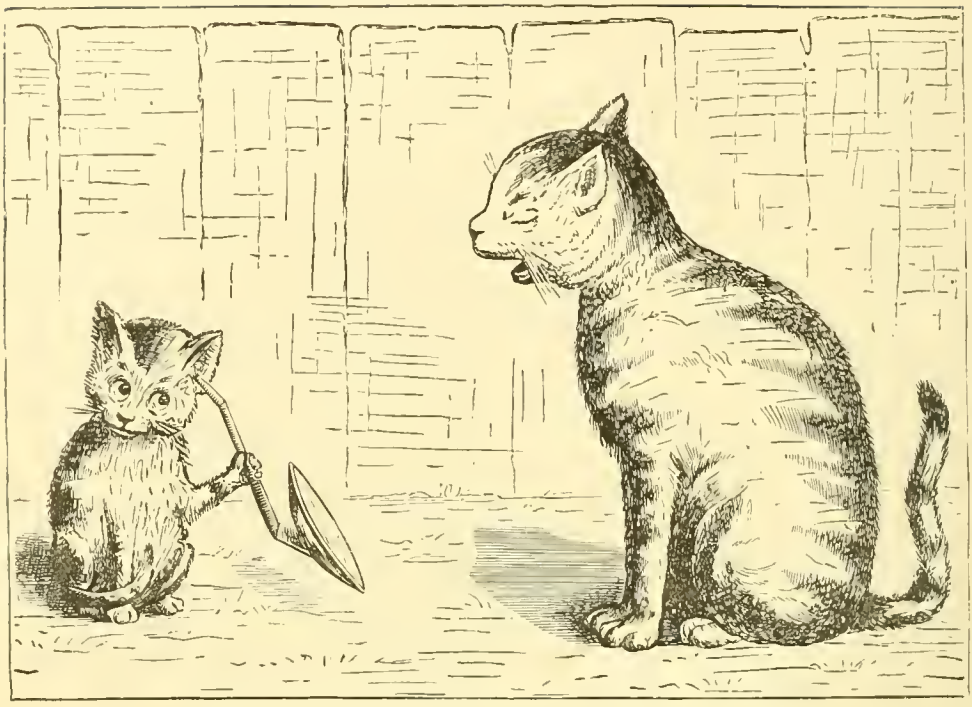
nature." Here is a picture of the moon when it is full, as seen through a telescope. The curious markings, as I told you before, are rocky mountains and mountains in rings.

TELESCOPIC APPEARANCE OF THE MOON.

There is something else I must tell you about the moon before I close my story. The rise and fall of the tides is due to the influence of the moon upon the water in the ocean. When you have been at the seaside, you have seen the sea-water rise higher and higher, and then go back farther and farther. This is due to what is called the attraction of the moon. But, perhaps, this is too difficult for you to try to understand now. Meantime, you must remember, when you hear about or see the rising and falling of the tide, that it is due to the influence of the moon.

Next time I must tell you something about the sun, which gives us light by day. And now I want you to try to answer these few easy questions about my first and second stories.

What is the name of the science which tells us about the stars?
From what words does it come?
Are the stars all alike?
What are those called that are nearest to us and do not twinkle?
Why do they appear to alter their position night after night?
What are their names?
Do the planets shine by their own light?
Do the stars shine by their own light?
What, then, is the great difference between planets and stars?
Have the stars planets circling around them?
What other things does astronomy teach us?
Who made all the stars and planets, the sun and the moon, and the comets?
Why is the moon like a planet?
Why does the moon look bright to us?
Is the moon very large?
Is it as large as the earth?
Is it far away?
Give me an instance of the enormous distance?
Is it the nearest of the heavenly bodies to us?
Does the moon go round the earth? and how long does it take to perform its journey?
Why does it not always look the same to us?
Is there any living thing in the moon?
What is it like?
Are there are any mountains? Any valleys?
What are the ring plains?
Are there any extinct volcanoes—that is, burning mountains that have burnt themselves out—on the moon?
Does the moon influence the tides?



"A LITTLE LOUDER, PLEASE! I AM RATHER DEAF."

[Both "cat" and "kitten" are common nouns, because cat and kitten are the common names for all cats and kittens; but if the name of this kitten was Jack and the cat's name Sue, Jack and Sue would be proper nouns, because they would point out this particular kitten and cat; the first one masculine and the latter feminine, both of the singular number, because there is only one of each.]

GRAMMAR.

CHAPTER II.—MORE ABOUT NOUNS—GENDER—NUMBER.

MARY TEACHING BOBBY "PAT-A-CAKE."

Mary.—Proper noun, fem. gender, sin. num.
Bobby.—Proper noun, mas. gender, sin. num.

YOU have already learned that nouns are the names of persons, places, and things, and that there are proper and common nouns; and you now know, I hope, the difference between them.

But before I tell you about another part of speech, there is something more to be learned about nouns.

All nouns are said to be of the masculine, feminine, or neuter gender.

Man, Jack, Tom, boy, brother—these are all masculine.

Woman, Kate, girl, maid, sister—these are all feminine.

Neuter nouns are the most easy of all to remember, for all nouns that are without life and that are neither masculine nor feminine are called *neuter*.

Box, top, wheel, hoop, house—these are all of the neuter gender, because they are neither masculine nor feminine, and the word *neuter* means *neither*, *i.e.*, neither masculine nor feminine.

But, you will say, you have heard sailors call their ships *she*, as though they were feminine; and many people in the country—as, for instance, the labourers in Hampshire—call almost everything *he* or *she*. Well, sailors have for ages called their vessels *she*, and it has been found easier to adopt, than to alter their custom, so that this is an exception to the general rule; but educated people do not speak of ploughs, or shovels, or scythes, or any of those things as *he's* or *she's*. They are all neuter, and "*it*" is the proper word to use for them. I think now you will remember, after what has been told you, never to speak of a *place* or a *thing* as *he* or *she*.

But nouns may be of the singular or plural number. The singular number means *one*, as a coat; the plural number means more than one, as some coats, a few coats, or many coats. When you say, "Jack has a dog," the noun "dog" is of the singular number, because Jack has only one dog; but if you say, Jack has some dogs, or two dogs, the word "dogs" is of the plural number, because Jack may have two, three, or even six dogs.

The first and principal rule is, that when you wish to express more than *one* of anything you add *s* to its name, thus—dog is one dog, but *dogs* mean more than one; cat is one cat, but *cats* mean more than one cat.

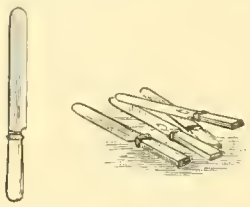
That is the First Rule; now, for the Second Rule.

Nouns, the singular numbers of which end in *ch*, *s*, *sh*, or *x*, require *es* to be added in order to form their plural number: *march*, *marches*; *brush*, *brushes*; *lass*, *lasses*: *box*, *boxes*.

BRUSH. BRUSHES.

The Third Rule is that nouns which end in *y*, when the *y* has a consonant coming immediately before it, change the *y* into *ies* in forming their plurals; as *quantity*, *quantities*. But you must mind that if the *y* be not immediately preceded by

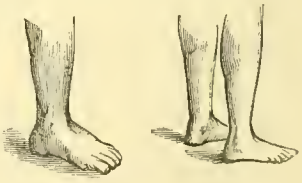
a consonant, the words follow the First Rule, and take only an *s* in addition to their singular; as *day, days. Correspondence* and *inconvenience* should have simply an *s:* for they end in *e* and not in *y*. The Fourth Rule is that nouns which end in a single *f*, or in *fe*, form their plurals by changing the *f* or *fe* into *ves:* as *loaf, loaves: wife, wives.* But this rule has exceptions, in the following words, which follow the First Rule: *Dwarf, scarf, mischief, handkerchief, chief, relief, grief.* The two last are seldom used in the plural number; but, as they sometimes are, I have included them. The Fifth Rule is that the following nouns have their plural in *en; man, men; woman, women; ox, oxen; child, children.* And *brethren* is used sometimes as the plural of *brother.* But all these words, and others which are irregular in a similar way, are of such very common use that you will hardly ever make a mistake in applying them.


KNIFE. KNIVES.

OX. OXEN.

MOUSE. MICE.

There are also some nouns which form their plurals too oddly to come under any of these rules; thus, *mouse* is one mouse, but *mice* means more than one. *Goose* becomes *geese* in the plural, *penny* becomes *pence, tooth* becomes *teeth*, and *foot* becomes *feet.*


FOOT. FEET.

GOOSE. GEESE.

Now for examples of what I have told you—

Woman—Common noun, feminine gender, singular number.

Man—Common noun, masculine gender, singular number.

You should pick out other nouns from any book near you, and try to say whether they are common or proper, masculine, feminine, or neuter, and whether they are singular or plural.

I am sure now you will be able to answer these few easy questions:—

What does Grammar teach us?
How many parts of speech are there?
What is a noun?
How many kinds of nouns are there?
What are they?
How many genders have nouns in English?
What are they?
How many numbers?
What are they?

WHAT A WONDERFUL LITTLE BODY GOD HAS GIVEN ME!

Like the boys and girls in this picture, I can kneel and pick flowers; I can walk and run; I can lie down and swing! How can my body do all this? I must read the lessons on "The Body" in "The Instructor," and then I shall learn something about it.

SOMETHING ABOUT MY OWN LITTLE BODY.

LESSON I.—ITS FORM, POWER, AND PARTS.

MY LITTLE BODY IS DIFFERENT FROM MY DOLL'S.

IN the story of the Creation, we learn that when God made man he was the last of His works, and being the last, was the most perfect, for "God created man in His own image, in the image of God created He him."

You will therefore not be surprised that when you come to learn something about the wonders of the human body, how it is built up, how it wastes, how it is mended, and what it does, you will find some very wonderful things indeed to exercise your minds.

Man is like no other of God's creatures that dwell among us. He walks erect and fearless, whereas other animals walk on four feet. His mind is quick to invent and execute, so that from the earliest times he has had all other animals in subjection,

if they were at all tameable. With regard to his outside appearance, you know that he has two arms and two legs, and that on each hand he has five fingers tipped with nails, and on each foot five toes, also tipped with nails. Hair is the natural covering of his head. You know, further, that all men are, as it were, moulded in one form, and the only difference one usually sees is in length or breadth. Sometimes, however, men have been born who were not of the usual form. Thus, one of the giants of Gath had four-and-twenty fingers and toes, six on each hand and six on each foot (1 Chron. xx. 6); and in our own time there were two people bound, as it were, in one, who were known as the Siamese twins. Exceptional cases like these rarely occur, however, so rarely that you would probably have to go all through your town, nay, all through the county in which you live, to find anything so extraordinary. The men you would find would be upright in form, and would have five fingers on each hand and five toes on each foot. They would be strong men, too, as a rule, capable of doing a hard day's work for a livelihood. They would be able to walk, run, jump, or lift heavy weights; and to show how strong the body may be made, we may give one or two examples of what the human body has done. An athlete in these days has run a mile in less than four and a half minutes; has walked a thousand miles in less than a thousand hours; and has leaped over a bar six feet high! Thomas Topham, of London, was a man of great strength. With his fingers he could roll up pewter plate. With his teeth he could lift a table six feet long, and hold it for a long time with a fifty-six pound weight hanging at the other end of it. He broke a rope two inches round. He was, in short, quite a modern Samson.

Besides being wonderful for the strength to which it may be brought, the human body is remarkable for the extremes of heat and cold it will bear. Many a time you have had a peep into an oven where bread was being baked, and you would naturally think that no one could exist for long in such a hot place, so hot, indeed, that a joint of meat might be roasted in it. It is a mistake, however, to think so, and that such is the case was proved long years ago. Three gentlemen, Sir Joseph Banks, Dr. Solander, and Sir Charles Blagden, entered

a room that was hotter than boiling water, and they remained in it for seven or eight minutes. It was so hot, in fact, that some eggs placed in the room were roasted in twenty minutes, and a steak was overdone in thirty-three minutes. They experienced no ill effects afterwards from having exposed themselves to so high a heat. Indeed, Mr. Chantry, who was a great sculptor, exposed himself in a hotter room still, for he with some of his friends went into a drying-room, the floor of which was red-hot, and they remained there two minutes. It is hardly necessary to mention that in these trials the bare flesh was not brought into contact with the red-hot iron, and the feet were encased in wooden clogs. At the other extreme, it is well known that our sailors have existed for long weeks in Arctic regions, among snow and ice, when it was so very cold, that not only all water was frozen but also quicksilver, which is a metal that never freezes in England.

Again, the body is so framed that great extremes of pressure can be borne. At the level of the sea there is a weight of fifteen pounds pressing against every square inch of the body; things are, however, so well arranged that we are not crushed to death. We may increase this pressure by going deep down into water inside a diving bell, or we may make the pressure very much less indeed by going above the clouds in a balloon; but whether we make it less or more the body is not much inconvenienced.

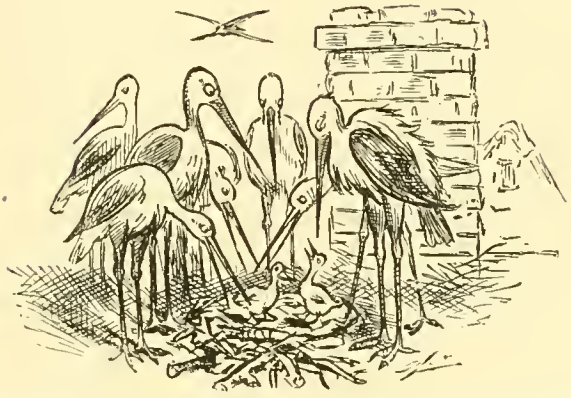
How is this very wonderful body built up? And if we could take it to pieces, like a machine, what should we find? To give a full answer to these questions would take a long time to read. We may say, however, that on such an examination one would find a framework of bones, called the *skeleton*, made up of more than two hundred separate pieces. Surrounding the bones we should see masses of flesh, called *muscles*, which move the body and its various parts. We should find the top part of the head to be a round box of bone, called the *skull*, and inside it we should see the brain, a big lump of nerve. Upon examining the inside of the chest we should see the lungs, and below there would be seen the busy heart, the stomach, intestines, and many more organs, all necessary for the well-being of the body. I will tell you more about these wonderful things another time.

KINDERGARTEN GAMES AND SONGS.

V.—THE WINDMILL.

A CROSS must be formed to represent the arms of the mill. Four children join their left hands in the centre; their right hands are then held by another four; others may join on, gradually lengthening the arms of the mill until all the children are placed; care being taken to present a straight line amongst those representing the arms. They then move round in a circle, keeping step with the music, the time of which may be varied. If the song be repeated, a change may be made (provided the number playing be not too large); those on the outside simply change places with those in the centre.

To be played with spirit, and in cheerful time.



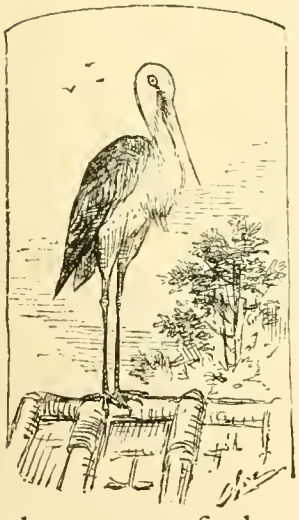
STORKS BUILD THEIR NESTS ON THE TOPS OF HOUSES.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

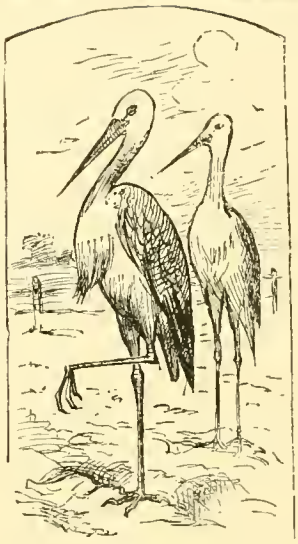
V.—LITTLE STORIES.

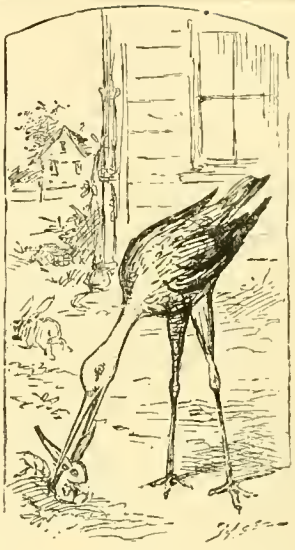


TO Harry's great delight, he could now read pretty little stories. He was very fond of one about the long-legged birds called storks. Here it is:—

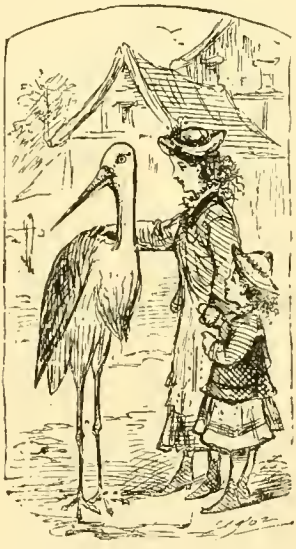
Storks are very fun-ny birds, with long legs and long necks and long beaks.

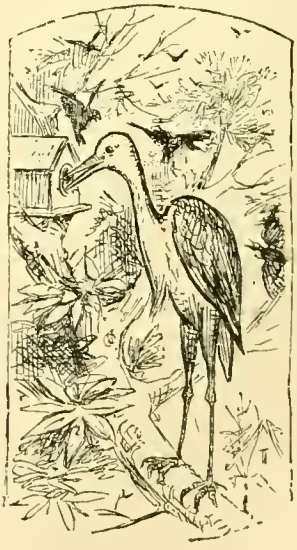
They do not live in Eng-land; they live in Hol-land, where they may of-ten be seen stand-ing on the tops of the houses, as you see one in this pic-ture. In win-ter they fly to a warm-er country.



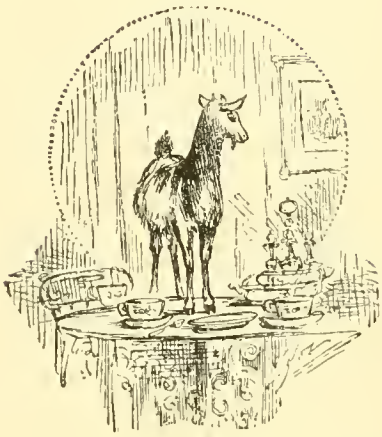


Two storks were stand-ing like this one day when a lit-tle one fell from its nest. So one of them pick-ed it up, and flew back with it to its nest.



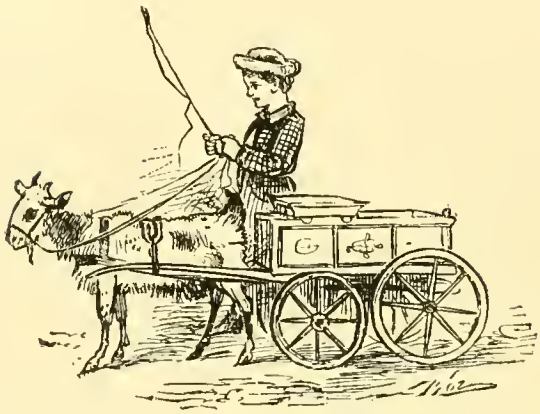


Fanny and her lit-tle sis-ter had a tame stork, and used to pat its back. But one day it put its long beak into a lit-tle house where some birds had their nest, and took out an egg. This was not good.

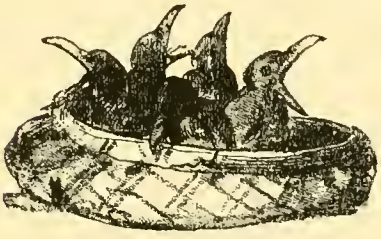


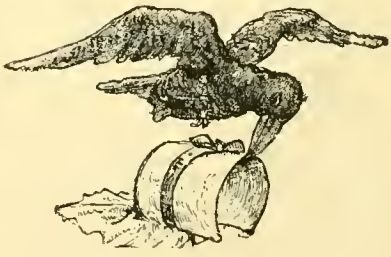
A kid is a lit-tle ba-by goat. Tom had one cal-led Bil-ly, and Tom's sis-ter used to take it on her lap. When he got older, Billy used to jump on the ta-ble.

Ba-by was sit-ting in the gar-den play-ing with flow-ers. Billy-goat came up and took some. It wan-ted to play with ba-by. Then it went into the nur-se-ry, and tried to drink some milk.

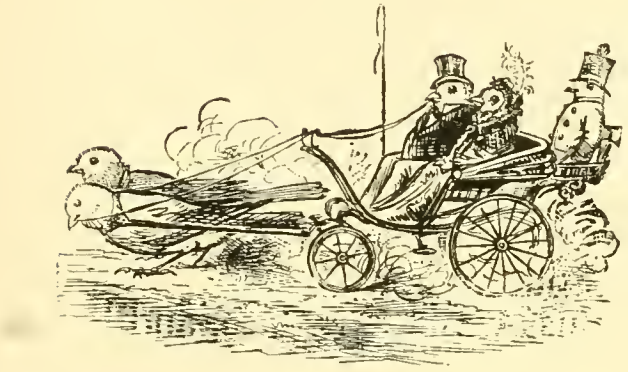


Tom made a lit-tle cart which Bil-ly was a-ble to draw a-long. Tom was kind to him, and Bil-ly was fond of Tom, and used to do as he was told. Some-times ba-by was ta-ken for a ride in the goat-cart, and some-times Tom put par-cels in it. Tom had such fun with his goat.

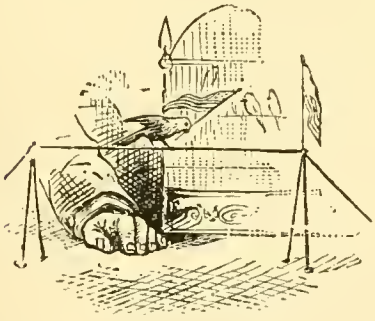




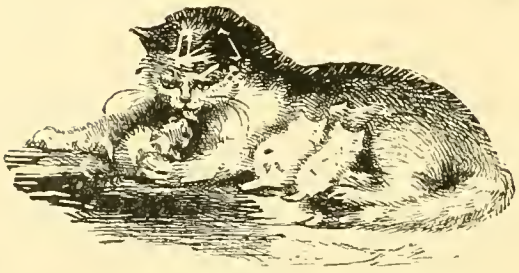
Here is a cap full of crows. One day a high wind blew their nest out of the tree, and Dick took them home in his cap. Some of them o-pen-ed their beaks wide, for they were hun-gry. So Dick fed them. One day the door of the cage was left open, and they flew in-to the gar-den. One took Su-san's bon-net off her head. Dick ne-ver saw them a-gain.



Can-a-ries are very clev-er birds, and can be made to do many fun-ny tricks. Some can be made to draw a lit-tle car-ri-age in which oth-er can-a-ries are sit-ting, dress-ed up, one as the mas-ter, one as the mis-tress, and a third as John, the foot-man. The mas-ter holds the reins in his beak.

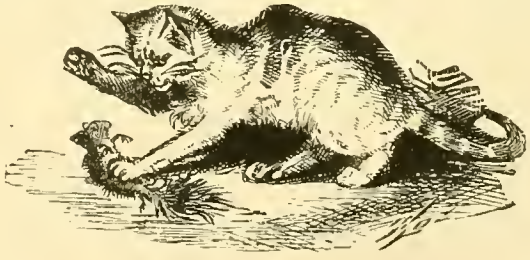


An-oth-er can-a-ry will walk along a string tied to the top of lit-tle posts, and he will car-ry a flag in his beak. Once we had a very fa-vor-ite bird, nam-ed Tuf-ty, be-cause he had a crest on his head. He got out of his cage, and when Fan-ny woke one morn-ing she saw Tuf-ty on the pin-cush-ion, look-ing at him-self in the glass.

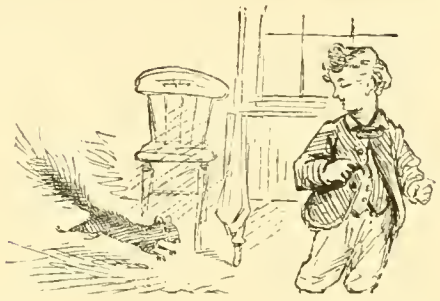


Once we had a lit-tle ba-by squir-rel, and it was so help-less that we gave it to our good cat to take care of. Puss wash-ed its face, and kept it warm.

When it was old-er it was very fond of fun. It used to jump and scamp-er all over the room, and it used to leap upon puss when she was sleep-ing.



Puss did not like this, so one day, when he dis-turb-ed her, she held him with one paw and cuff-ed him with the o-ther. He did not do it again.



Chip was the name of our squir-rel, and he was very fond of run-ning af-ter lit-tle Dick, with his long bush-y tail spread out be-hind him.

Some-times we saw Chip sit-ting in a cor-ner eat-ing a nut or an a-corn. He lik-ed to eat nuts very much. We also fed him with milk and bread.

He used to sleep in all kinds of queer pla-ces; some-times he would creep sly-ly up grand-mamma's chair, and get in-to her work-bag or pock-et.

TEAPOT.

CRUET.

CUSHION.

BROOM.

TOOTH-BRUSH.

PEPPER-BOX.

SCOOP.

FAN.

BELL-PULL.

BELL.

SHOE-HORN.

SUGAR-TONGS.

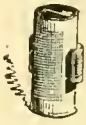
COFFEE-POT.

CORKSCREW.

PAIL.

GOBLET.

PICTURE.


SPICE-BOX.

PADLOCK.

CARDS.

CRAB.

TUB.

SPOON.

SCISSORS.

WINE-GLASS.

DISH.

PLATE.

DECANTER.

BUST.

NUT-CRACKERS.

BOOT-HOOK.

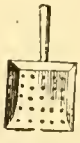
BASIN.

POWDER-PUFF.

BOOT.

BED.

CHEESE-KNIFE.


SHOVEL.

PITCHER.

GRIDIRON.

BELLOWS.

HOUR-GLASS.

BOWL.

POT.

STOOL.

COMB.

RAZOR.

FUNNEL.

URN.

BREAD.

JUG.

KNIFE.

LADLE.

PIE

FILTER.

MUG.

CUP.

FILE.

GIMLET.

CHAIR.

TANKARD.

ROLLER.

SNUFFERS.

HAMMER.

TACK.

PENCIL.

WEDGE.

TRIANGLE.

OVAL.

DIAMOND.

CIRCLE.

SQUARE.

HINGE.

FOOT-RULE.

PULLEY.

BOX.

SLATE.

GRAPES.

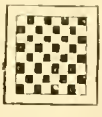
GRIND-STONE.

SQUARE.

LAMP.

WATER-POT.

SCALES.


DRAUGHT BOARD.

BLOCK.

LARCH TREE.

PINE TREE.

The *Larch* and the *Pine Tree* have a long straight stem or trunk, and branch-es grow out at reg-u-lar dis-tan-ces. They bear cones, and have thin nar-row leaves, some-thing like the teeth of a comb. There are man-y kinds of pine trees.

CE-DAR TREE.

WHITE WIL-LOW TREE.

The *Ce-dar Tree* is green all the year round. It grows chief-ly in Pal-es-tine, and the best are on Mount Leb-an-on. The *White Wil-low Tree* grows very fast in Eng-land, and bas-kets are made of its branch-es. Its leaves are long and nar-row.

HORN-BEAM.

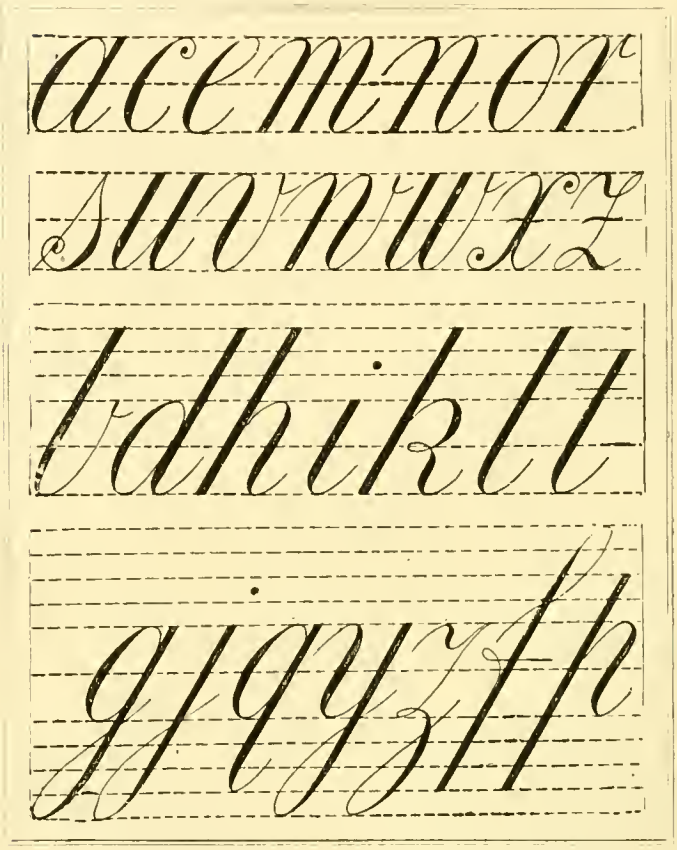
CORK TREE.

The *Horn-beam* does not grow very high; its leaves are small and its wood is hard and tough. The *Cork Tree* does not grow in Eng-land. It grows in Spain and Por-tu-gal. The bark is thick, and gives us the corks we put into bot-tles.

OAK TREE.

HORSE CHES-NUT TREE.

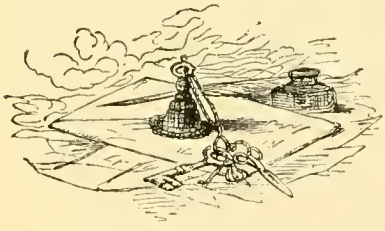
The *Oak Tree* has been cal-led the "Prince of Trees," be-cause it is so hand-some, and its wood is so strong. It bears a-corns, and has beau-ti-ful leaves. The *Horse Ches-nut Tree* has ve-ry large fine green leaves, and bears splen-did flow-ers.



AMY'S ALPHABET OF WRITTEN LETTERS.

WRITING MADE EASY.

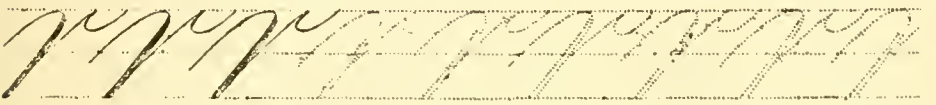
V.—X'S AND Z'S, AND PRACTISING THE ALPHABET.



WRITING MATERIALS.

YOU will find a copy of the *r's* that Amy made on the next page; and you will see that *r* is only like a "pot-hook," with a little loop or "bow" at the top of it. Amy practised it for a little time, as she had practised the others, first over the dotted lines, and then without them.

After *r* came the turn of two other letters, which mamma had left to the last—*x* and *z*. *x* is like



two *c*'s, one turned upside down, and placed at the back of the other. Here it is—

The line in the middle shows where the downward stroke should be thickest. "Take time, Amy," said her mamma, "and follow your copy closely. Remember all up-strokes must be thin, and all down-strokes thicker."

After *x* came the last letter of all, and one of the most difficult—*z*. There are two ways of making *z*; one as you see it here, and one as you see it in the alphabet on the previous page. You must practise it both ways.

After this came *z* and *x* together, in making which

the pen was only to be lifted once, when the *x* was half completed. Then Amy had to practise all the letters, until one day, when her mamma saw that she was able to form them all fairly well, she promised that next day she might begin to write little words.

How many sheep are here?—*Eleven.* Take two away, and how many are left?—*Nine.* Take three from nine and how many are left?—*Six.*

PICTORIAL ARITHMETIC.

V.—HOW TO COUNT UP TO A THOUSAND; SUBTRACTION.

I have ten tens of apples in my basket. How many in all? 100. But if I give you 10, how many have I left? 90. How jolly!

YOU have now learned what a hundred is, and you have no doubt often arranged your cubes into groups of tens—as I told you to do—until you reached a hundred, which, as you know, is ten tens.

Now I want to tell you what a thousand is. Just as ten tens make a hundred, so ten hundreds make a thousand.

Suppose you have 100 (one hundred) cubes or apples on the table; if you had ten of these groups

with 100 in each, they would all together make up a thousand. This is how we count up to a thousand:

Suppose you had 100 cubes or apples on the table,

Add another	apple	and say	*one hundred and one*	101
Add a second	apple	and say	*one hundred and two*	102
Add a third	apple	and say	*one hundred and three*	103
Add a fourth	apple	and say	*one hundred and four*	104
Add a fifth	apple	and say	*one hundred and five*	105
Add a sixth	apple	and say	*one hundred and six*	106
Add a seventh	apple	and say	*one hundred and seven*	107
Add an eighth	apple	and say	*one hundred and eight*	108
Add a ninth	apple	and say	*one hundred and nine*	109
Add a tenth	apple	and say	*one hundred and ten*	110

Thus you have added ten apples to those on the table, and you have one hundred and ten there. Of course you go on counting as before,—

111	201	301	401	501
112	202	302	402	502
113	203	303	403	503
114	204	304	404	504
115	205	305	405	505
116	206	306	406	506
117	207	307	407	507
118	208	308	408	508
119	209	309	409	509
120	210	310	410	510
And so on up to 200.	And so on up to 300.	And so on up to 400.	And so on up to 500.	And so on up to 600.

If we kept on counting in the same way through

700, 800 and 900 we should come at last to 999. What comes next? One thousand; that is, ten hundreds. It is written like this, 1000.

Thus one figure standing alone counts *units;* two figures are *tens;* three figures are *hundreds,* and four figures are *thousands.*

Now, what is 6739? Here are four figures, so begin at the right hand, *that is,* the nine, and say —units, tens, hundreds, thousands. Therefore we say six thousand seven hundred and thirty-nine.

You should put down several sets of figures on the slate and read them in the same way, until you quite remember that four figures are thousands, three figures hundreds, two figures tens, and one figure units.

Now let us work a subtraction sum containing thousands. Supposing we subtract 3498 (three thousand four hundred and ninety-eight) from 6739 (six thousand seven hundred and thirty-nine). Here is the sum:—

6	7	3	9
3	4	9	8
			1

Taking away eight cubes from nine cubes leaves just one—does it not? So we have put to down the 1. The next figures are 9 and 3. Can you take nine cubes from three cubes? No, you say, because *nine* is a greater number than *three.* But you must remember it is not really nine from three. We are taking 3498 from 6739, so we take a hundred from the third top figure, making in this case the 39 into 139. Then the sum looks like this—

	6	13	
6	~~7~~	~~3~~	9
3	4	9	8
		4	1

Now we say 9 from 13. This leaves 4; so down goes the 4.

The next figures are 4 and 6. This leaves 2. Of course we say four from six (that is,—four hundred from six hundred) because we took one from the seven to add on to the three.

$$\begin{array}{cccc} & 6 & 13 & \\ 6 & \not{7} & \not{3} & 9 \\ 3 & 4 & 9 & 8 \\ \hline & 2 & 4 & 1 \end{array}$$

You must understand that when we borrowed 1 from the third figure we were borrowing a hundred, and instead of saying 498 from 739, we did it bit by bit, and said 98 from 139, then the 4 from 6 afterwards, as this of course left 6 in the place of 7. This was because we cannot take 98 from 39.

The next two figures, 3 and 6, leave just 3; so down goes the 3—and the sum is done.

$$\begin{array}{cccc} & 6 & 13 & \\ 6 & \not{7} & \not{3} & 9 \\ 3 & 4 & 9 & 8 \\ \hline 3 & 2 & 4 & 1 \end{array}$$

Your answer is three thousand two hundred and forty-one (3241).

You should practise a great number of little subtraction sums every day, until you can do them easily. You can always prove if you are right by adding the lower line and your answer together, and if they make the same as the top line, you have worked the sum correctly.

Thus in the sum we have just worked—

1 and 8 are 9;
4 and 9 are 13;
2 and 4 are 6 (and 1 from the 13 makes 7)
3 and 3 are 6;

thus we get 6739 again.

This, you see, is only like giving back what you took away. Thus, if your sister had 6 apples, and you took 3 away, she would only have 3 left; but if you gave back the 3 she would of course have the 6 once more. So in the sum we have worked, if a person had 6739 apples and you took 3498 away he would only have 3241 left, but if you gave back what you took away he would have 6739 as before.

I think by this time you will understand something about the second rule in Arithmetic, which is Subtraction, so next month we will go on to the third rule, which is Multiplication.

NUMBER NURSERY RHYMES.

(FOR THE VERY LITTLE ONES.)

1 2 Buckle
my
One, Two, Shoe.

3 4 Shut
the
Three, Four, door.

5 6 Pick
up
Five, Six, sticks.

7 8 Lay
them
Seven, Eight, straight.

9 10 A good
fat
Nine, Ten, hen.

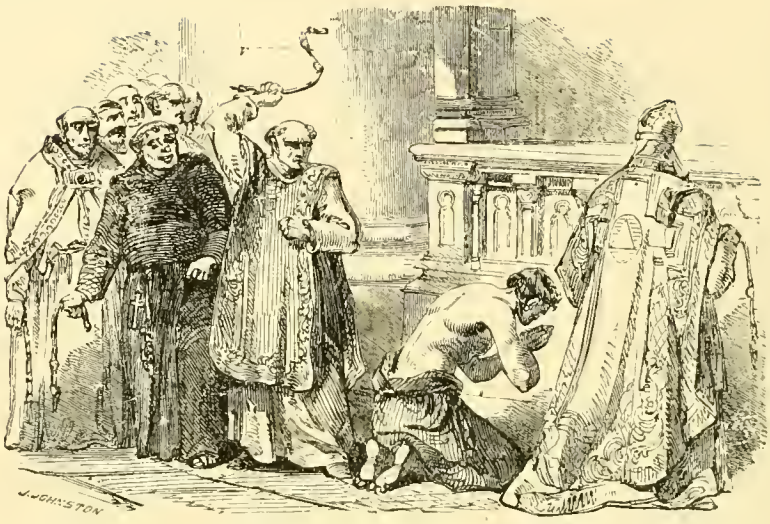
11 Eleven, 12 Twelve, Who will delve?

13 Thirteen, 14 Fourteen, Draw the curtain.

15 Fifteen, 16 Sixteen, Maid is in the kitchen.

17 Seventeen, 18 Eighteen, Maid is waiting.

19 Nineteen, 20 Twenty, My plate is empty.



MONKS WHIPPING HENRY II., AS A PUNISHMENT FOR THE MURDER OF THOMAS A BECKET.

THE HISTORY OF ENGLAND IN EASY LESSONS.

HENRY I.—STEPHEN.

How cloth was first made in England; death of Henry I.; Stephen takes the crown; war between Stephen and Maud; Winchester, the capital of England.

MUR-DER OF THOM-AS A BECK-ET.

THE first place for making wool into cloth was built in the reign of Henry I. At that time people kept more sheep than any other animals, and they made much money by selling the wool. But before Henry's time the wool was sent abroad to be made into cloth.

Henry I. died in 1135. He left the crown to his daughter Maud; but she was in France, and in her absence the crown was taken by Stephen, a nephew of Henry. Many of the nobles liked Stephen because he let them have their own way, but others sided with Maud, and when she came to England she brought a number of French fighting men to support her claim, and for nearly fifteen years there was a civil war, that is, a war when people in the same country fight against one another. The distress of the people was very, very great, for there was no time to till the ground properly, and many of the

nobles robbed and plundered the poorer people very shamefully. I think I may say that there never was a time when there was so much misery in England as during the civil war in the reign of King Stephen.

At last it was decided Stephen should reign for the rest of his life, but at his death Maud's son, Henry Plan-ta-ge-net, should be king. He was called Plan-ta-ge-net, because that was the name of his father, Count Geoffrey of Anjou, who was Maud's second husband. The name Plantagenet comes from the two Latin words *Planta Genista*, meaning the plant we call broom, which had been adopted by the Earls of Anjou as their crest and surname, for it had been worn by the first Earl when he went to the Holy Land as a pilgrim.

Soon after this Stephen died, in 1154, and with him ended what we call the Norman line of kings of England, the next being known as the Plan-ta-ge-nets.

During the Norman period Winchester, and not London, was the capital of England. But London was fast becoming the largest and the richest city, though at that time the houses were little more than wooden huts thatched with straw, and with no glass in the windows.

Westminster was a separate city, and where now are the busy Strand and Charing Cross there were then quiet fields sloping down to the edge, or strand (hence the name of the famous street), of the river. The kings had a palace at Westminster, and Rufus built Westminster Hall, some say for his Christmas feasts. During the Norman period the words *beef*, *veal*, *pork*, *mutton* were first used, these being really corruptions of the French words *bœuf*, *mouton*, &c. The words *ox*, *calf*, *pig*, and *sheep* are all Saxon.

HENRY II.

How Henry made the English people happier; quarrels with Thomas à Becket; how Becket was murdered; how Henry was whipped; how Ireland was conquered.

The people in England were very glad when Henry the Second became king. He drove away all the soldiers that had been brought over from France to fight in the civil wars of Stephen and Maud, and he built up the towns that had been burned down.

He also sent judges through the land, to hear all complaints, and to see that the people were properly treated. So they began to feel safe again, and to build up their cottages once more, and dig up their gardens and fields.

But though Henry was good and wise in many things, he

A PICTURE OF ENGLAND IN THE TIME OF RICHARD II.
ROBIN HOOD SHOOTING IN SHERWOOD FOREST.

sometimes got into violent passions. He used to quarrel very much with the Archbishop of Canterbury, whose name was Thomas à Becket. This man wanted to be as great as the King, and to have as much power. Among other things, he

wanted to punish the wicked clergymen himself, instead of letting them be punished by the judges who punished other naughty people. So there used to be a great many quarrels between Henry and Thomas à Becket, and one day, when Henry heard of something that the Archbishop had done, which made him very angry, he said he wished this "turbulent priest" was dead. Then four of his soldiers, wishing to get into Henry's favour, rode off to Canterbury Cathedral and killed the Archbishop before the altar.

Then the King was very sorry, and to show how sorry he was he stood at the altar and allowed some monks to whip him very hard on his bare back.

THE CONQUEST OF IRELAND.

I MUST now tell you about the conquest of Ireland, which took place in Henry's reign. Ireland was never conquered by the Romans, as the ancient Britons were, but a good man whom the Irish called Saint Patrick, went over from England and taught them to be Christians, and how to read.

But in King Henry the Second's time there were several kings in Ireland, and they quarrelled very much among themselves, until one of them, named Dermot, came over to England and asked Henry to help him fight against the other kings. But Henry said he had too much to do, but if any of his Earls chose to go they might, if Henry should be called the King of Ireland. So Dermot said if the Earls did help him, and if they would punish his enemies, the King of England should be King of Ireland too.

Then a very great fighting man, the Earl of Strigul, who was nick-named Strongbow, and some other noblemen, went over to Ireland and fought several battles, and after much fighting the kings of Ireland were conquered, and ever since then Ireland has been under the same king as England.

Henry's wife was a bad woman, and she made her sons behave badly to their father. This troubled him very much. The eldest son, Henry, died before his father, and Geoffrey, the third son, died also, but Richard and John lived after him. Henry died in 1189, they say of a broken heart because of his sons' naughtiness.

RICHARD I., CALLED CŒUR-DE-LION.

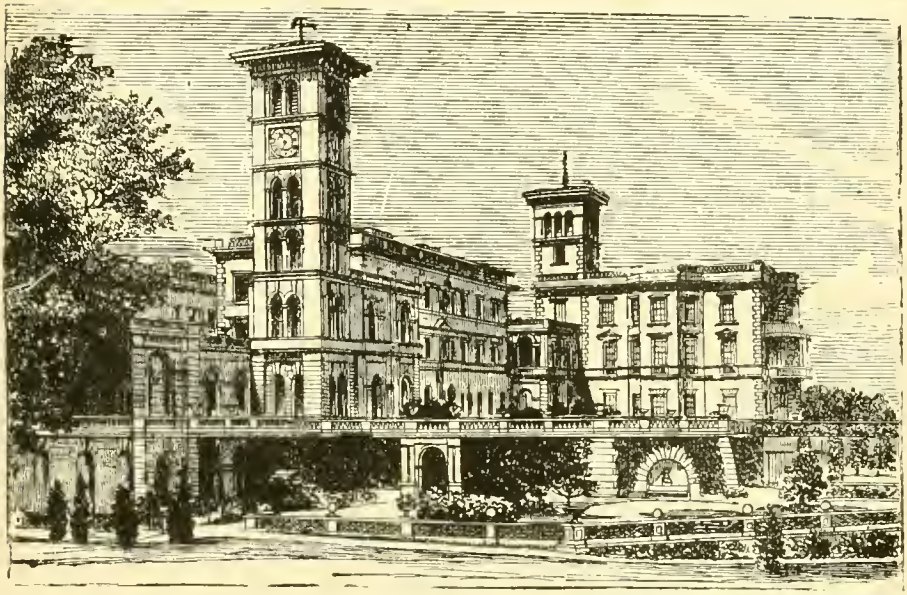
How Richard went to the Holy Land to fight in the Crusades; how he fought several great battles; how he returned home; how he was taken prisoner, and found by Blondel singing a song.

Richard I., called Cœur-de-Lion, which means lion-hearted, became king when his father, Henry II., died. Richard was called Lion-hearted because of his great bravery and boldness. He was a great fighting man, and went to the Holy Land to fight against the Mahommedans. This is called the Third Crusade. He surprised all the world by his wonderful deeds, and the most extraordinary tales are told of his bravery—which you will be able to read about by and by; but with all his valour he was not able to conquer Jerusalem, for he became ill and had to return home: many of his men were ill also.

Richard's ship was wrecked in the Gulf of Venice, and he had to wander about in the dress of a pilgrim, but he was discovered and made prisoner by the Duke of Austria. Scarcely anyone knew where he was shut up, until a wandering minstrel, named Blondel, found him—so the old stories say—by the singing of a song which Richard himself had composed. The song was answered from within the prison, and then the minstrel knew who was there. At last he was set free, on the payment of a large sum of money, and returned to England. Soon after this he died.

In the reign of Richard I. the famous outlaw Robin Hood lived. An outlaw was a man who lived in the forests and killed the king's deer. Robin Hood and his band of "merry men" lived in an immense wood in the middle of England, called Sherwood Forest. They used to shoot with bows and arrows, and practised so much that they became very clever at shooting. They were kind to the poor people.

When was wool first made into cloth in this country?
When did Henry I. die?
Who ought to have reigned after him?
Who took the crown?
Why did the nobles like Stephen?
What terrible disaster then occurred?
How did the civil wars end?
Why was Henry called Plantagenet?
What line of kings ended with him?
What city was then the capital?
When did Henry II. begin to reign?
Was he a good and wise king?
How came Becket to be murdered?
What punishment did Henry receive?
What great event happened?
Who reigned after Henry?
Where did he go to fight?
What happened on his return?
Who discovered him?
What famous outlaw lived in his reign?
Where did he live?



OSBORNE HOUSE, THE RESIDENCE OF THE QUEEN IN THE ISLE OF WIGHT.

The Queen has four large houses, or Palaces; one is Osborne, in the Isle of Wight; another is Buckingham Palace, in London; another is Windsor Castle, on the Thames, about 23 miles from London; and another is at Balmoral, in Scotland.

GEOGRAPHY.

MORE ABOUT SOME ENGLISH TOWNS—SCOTLAND.

ROYAL STANDARD OF ENGLAND, SCOTLAND, AND IRELAND.

YOU remember that we left off last time as I was telling you about some of our English towns—Cardiff and Swansea.

If you went over the river Severn, or further out, where it widens into the Bristol Channel, you would come to the beautiful moors of Devonshire, Dartmoor and Exmoor, and to the beautiful lanes filled with ferns and flowers.

Plymouth is just there; and Plymouth has a great dockyard for building ships, and for fitting up ships to go long voyages by sea. Further down is the county called Cornwall; and in it there are many places where the people are always digging for lead, and tin, and copper, in deep dark pits in the ground called mines.

I want you also to look at the Isle of Wight. It is noted for being very pretty. The Queen has a very large house there, called Osborne House. Then look at Southampton;

that is another of the great shipping-places called seaports. So is Portsmouth. At Stafford, and many of the places round about, they make pots and pans, and cups and saucers, and plates and dishes. It is called the Pottery country, and sometimes the Potteries. At Birmingham, which is a very large place, like London, and Liverpool, and Manchester, they make nails, screws, guns, pistols, spades, fire-irons, spoons, nut-crackers, dish-covers, iron bedsteads, and all sorts of things called Hardware. At Leicester there are many wool factories; and the machinery is always going click, click, click, making thousands of pairs of socks and stockings, and neck-ties, and woollen things of all kinds. Then on the sea-coast, almost in a straight line with Leicester, is Yarmouth, where the herrings come from.

Now I think you know something about England and Wales—the chief towns, rivers, mountains, and so on. There is a great deal more for you to learn about England when you are older, but try to remember what I have told you, and it will help you to learn more by and by.

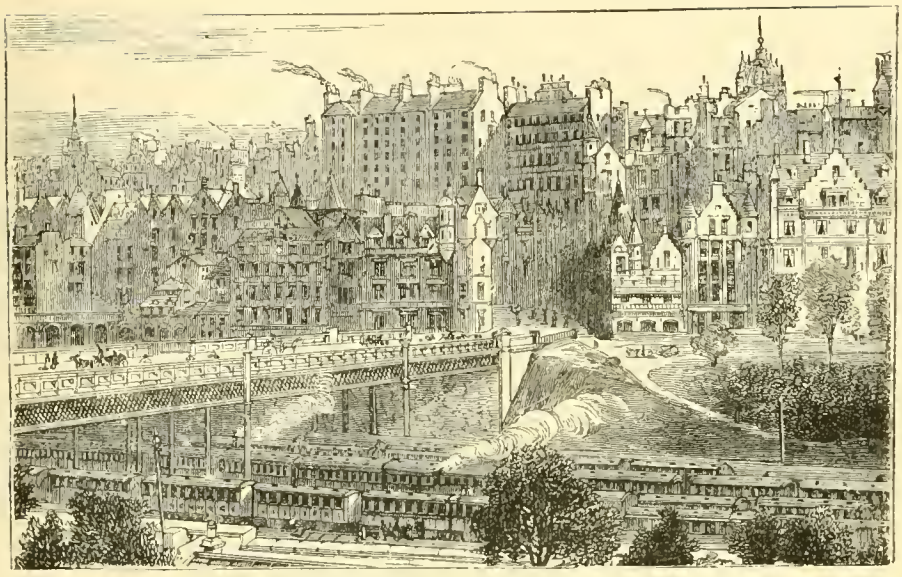
SOMETHING ABOUT SCOTLAND:

Its Towns, its Rivers, its Lakes, its Mountains.

At its lower or southern part Scotland is joined on to England; this you will see by looking at the map; but on its other sides is the sea. On its left side is the Atlantic Ocean, and on its north and east coasts is the North Sea. The Cheviot Hills and the Lauriston Hills form a kind of wall between England and Scotland; and where these hills finish, and go down into the flat moor and moss, there is the water of the River Tweed to continue the boundary from sea to sea. But it does not matter much now which is Scotland and which is England, for, as I have told you, they are now like one country, and under the same rule. The greatest length of Scotland is 280 miles, and its greatest breadth is 146 miles.

THE TOWNS OF SCOTLAND.

Edinburgh is the capital city of Scotland. It is the city where the Scotch Kings in the olden days had their palace, called Holyrood Palace. Edinburgh is a beautiful city, built



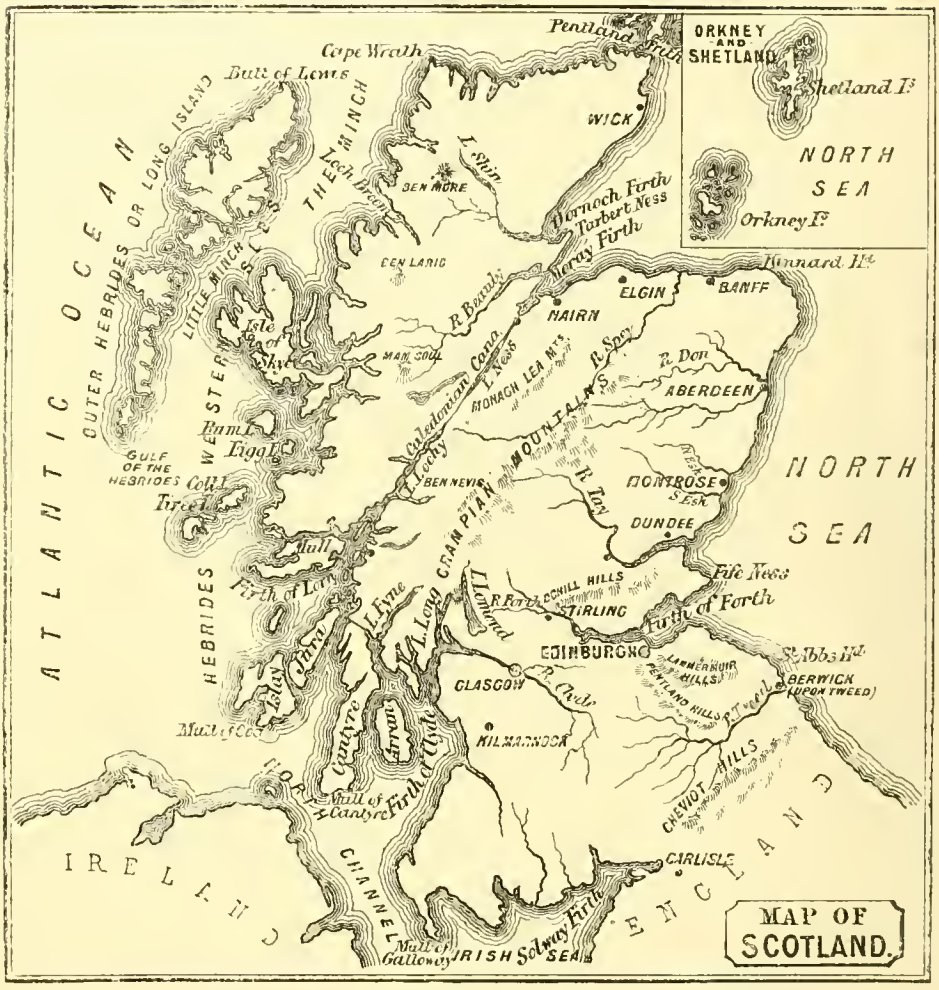
PICTURE OF EDINBURGH.

Showing Waverley Bridge, part of the Railway Station, and the high houses of the Old Town.

[Edinburgh is the capital city of Scotland, and in olden times the Kings and Queens of Scotland used to live in a palace here, called Holyrood Palace. Part of the city is very, very old. Some of these old houses are eleven and twelve stories high. You can see some of these in this picture. The tall church tower on the right is St. Giles' Cathedral, where John Knox used to preach.]

quite close to the sea; and the part of the sea that it looks upon is called the Firth or Frith (or the mouth) of Forth. The Forth is one of the principal rivers of Scotland. High hills are round Edinburgh: Carlton Hill, Arthur's Seat, and some others; and there is a fine old Castle, which stands on a hill in the very middle of the bustling streets; and the fine hospitals, and public buildings, and elegant shops of Edinburgh make it as remarkable as any city in the world.

Another great and famous city in Scotland is Glasgow. It is the chief manufacturing city in Scotland, is larger than Edinburgh, and larger than any city in the kingdom except London. It is a vast and crowded place of factories, and business and workshops, and tall chimneys and smoke, and fog, and noise that never stops. Port Glasgow, the shipping-place of the city, is immense also. It is on the Frith, or mouth, of the River Clyde, and there are so many ships that are made, and ships that are being made, that the masts crowding so



MAP OF SCOTLAND.

closely together look quite like a forest. Can you see how these ships get away from the Port, out into the Channel, and then out into the ocean? It is by a river, called the Clyde.

Glasgow is not in the same county that Edinburgh is; there are 33 counties in Scotland. Some day you will learn the names of them all.

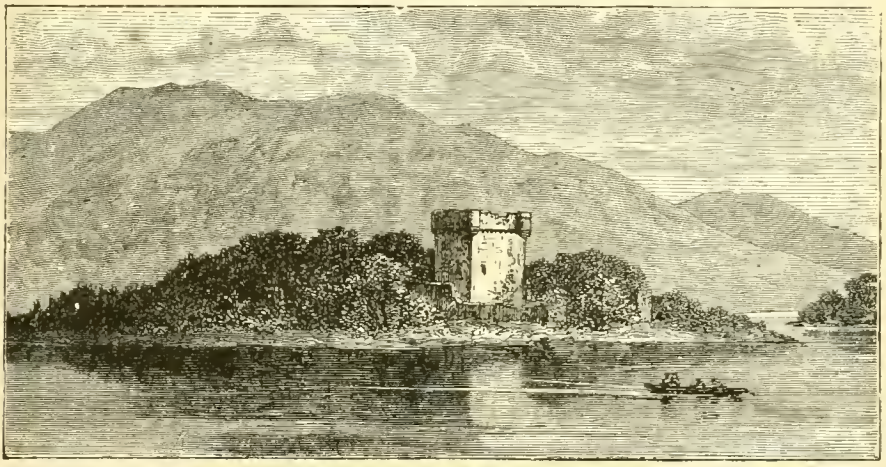
THE MOUNTAINS OF SCOTLAND.

Scotland has a great many mountains, one called Ben Lomond, another Ben Nevis; this is the highest mountain in Scotland and in the kingdom; it is 4,406 feet high. There are the Grampian Hills, running between Aberdeen and Forfar;

there are the Monagh Lea Mountains, in Inverness; there are the Lammermuir Hills, between Haddington and Berwick; and there are the Pentland Hills, not far from Edinburgh city.

THE RIVERS OF SCOTLAND.

Look at the Scotch rivers also. Besides the Tweed, the Forth, and the Clyde, which you have looked at already, you must point out some others. Point to the Esk, the Tay, the Yarrow, the Beauley, the Don, and the Spey.



LOCH LEVEN, IN KINROSS-SHIRE.

[This is a picture of a Scottish Loch. You see there are high mountains around it, and islands within it, and the water is very smooth. But sometimes storms come and make the water very rough. The ruins on the island are the remains of the castle in which Mary Queen of Scots was imprisoned, and from which she made her escape. This you will like to read about by and by in the History of Scotland, and in a nice book called *The Abbot*, written by a very clever man named Sir Walter Scott.]

THE LOCHS OR LAKES OF SCOTLAND.

You can see lakes, too, on the map, where these rivers rise, and which seem to join the lakes together. Lakes are called lochs in Scotland, and you must learn where to find the largest of them. Loch Ness is one, Loch Awe is one, Loch Lomond is another. This is the largest. There are also Loch Leven, Loch Lochy, Loch Tay, and Loch Shin. There are other lakes which are not closed in with moor, and meadow, and mountain, and heather-covered slopes, and lovely towns and gardens, like most lakes are. They are open at one end, right straight into the sea. This makes the water of them

salt water, not fresh, as is the water of most lakes. These open lochs are Loch Fyne, Loch Long, Loch Carron, Beauley Loch, Loch Ryan, Loch Broom, and perhaps you can find one or two more.

THE FRITHS AND CANALS OF SCOTLAND.

There are many friths round Scotland. There is the Solway Frith; the Frith of Clyde; Frith of Lorn; the Pentland Frith; and the Friths of Dornoch, and Moray.

Then there are canals, the great Clyde Canal and the great Caledonian Canal, and there are those parts of the sea called the Minch, and the Little Minch.

THE CAPES OF SCOTLAND.

Now, of course, as there is such a great deal of water running up into the land, there are a great many points of land running into the water.

There is the Mull of Galloway, there is the Mull of Cantyre, there is the Mull of Ooa. Going farther north, up to the Hebrides, on the western side, at the far top of Lewis, you will see the Butt of Lewis. On the mainland again, across the Minch, you will see Cape Wrath; then Strathy Head and Duncansby Head, and, coming lower, the Ord of Caithness, and Tarbet Ness, and Kinnaird's Head, and Peterhead, and Stonehaven, and Fife Ness, and St. Abb's Head.

Now I think that is all you can learn at present about Scotland. You should read over what I have written every day until you know it all, and you can answer these questions:—

Where are Dartmoor and Exmoor?
What is Plymouth famous for?
What mines are there in Cornwall?
What is the Isle of Wight noted for?
Where are Portsmouth and Southampton?
Where are the Potteries?
What is Birmingham noted for? and Leicester, and Yarmouth?
Where is Scotland?
Has it sea all round it?
What hills and what rivers are between Scotland and England?
What is the capital city of Scotland?
What celebrated palace is in Edinburgh?
What is the name of the chief manufacturing city in Scotland?
How many counties are in Scotland?
What is the highest mountain?
Give me the names of some other ranges of mountains, and point them out on the map.
Give me the names of some of the Scotch rivers, and point them out on the map.
Give me the names of some of the Scotch lakes, and point them out on the map.
Give me the names of some of the capes of Scotland, and point them out.

PLAYING SOME BASS NOTES.

[Practising on the piano is so nice and easy, now that I learn the Music and Singing Lessons in the "Child's Instructor."]

MUSIC AND SINGING.

A LITTLE MORE ABOUT NOTES.

NOTES BELOW THE STAVE IN THE TREBLE.

YOU have now learned all the notes in the spaces and on the lines in the treble and bass. Now we will just learn two notes below the stave in the treble.

The first line in the treble, as you know, is E, and the first note below the line must be D, because D is one bird and one note lower than E: if you look at the piano you will see this at once.

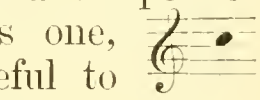
This is D and D is a space—the first space below the stave in the treble.

The first line below the stave is C. C has a short line through it, just to distinguish it from the spaces. Try and remember these two notes below the lines in the treble—D in the first *space* below, and C on the first *line* below the stave.

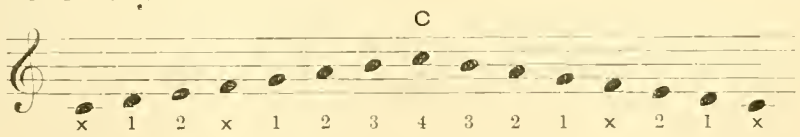
SOMETHING ABOUT SINGING.

I HAVE taught you these two notes because I want you to learn the scale of C—not only to play it, but to sing it too.

If you were to go to a piano, and touch one of the birds in the daylight, you would know which one you were playing, because you could *see* it; but if you were to go to the piano when the room was quite dark, and you could not see the birds, you would not know which one you were touching, because you are not yet sufficiently familiar with each bird's voice. I will tell you a nice little way of remembering some of the voices. When mamma sings to you, each sound which her voice makes is a note in exact imitation of one of the birds' voices. The voices which we are able to imitate upon the piano lie just in the middle—for, you know, nobody could sing such low notes as the birds sing right down in the bass, nor yet such high shrill notes as those birds can sing who lie high up in the treble, so we can only sing with the birds who lie just near and about the centre of the piano. Put your finger on one of the bass birds, quite low down. Now do you think you could sink your voice so low as that? No, I am sure you could not. Put your finger on C, the first line below the stave, and see if you can sing that. It is quite easy, you say. So it is. Just sing the letter C instead of saying it; now D, and E, F, G, A, B, and C. You can sing all of them quite easily, can you not? If you play these birds continually

singing their names as you play them, you will find in time that you become so familiar with their voices, that if you play one of them with your eyes shut, or in the dark, you will know at once which bird you are touching. To play this scale of C, you must be careful how you place your fingers. Begin with the thumb of the right hand upon C. This C, you know, not this one,  for you must be very careful to remember where the different birds lie. Put your thumb upon this lower C, your first finger upon D, and your second finger upon E; now pass your thumb under the second finger on to F; then use all your fingers in turn, and you will find your fourth, or little finger, just goes to C—the higher C, of course, which is represented by the third space in the treble. To come back again, put your third finger upon B, the second upon A, and so on, till you come to your thumb. This brings you to F. Pass the second finger over the thumb on to E, and you will find just two fingers left to play D and C, which ends with the thumb, and finishes the exercise. In printed music, x stands for the thumb, and 1, 2, 3, 4, for the first, second, third, and fourth fingers.

Here is your exercise—



THE SCALE OF C.

In the next chapter I will tell you how you may learn to play the scale of C with both your hands.

GOING HOME A LITTLE WAY WITH OUR LITTLE FRENCH BOY.
Because it rains we walk under an umbrella.
Parce qu'il pleut nous nous promenons sous un parapluie.

EASY LESSONS IN FRENCH.

FOURTH LESSON; QUATRIÈME LECON.

THE LITTLE FRENCH BOY COMES TO DINNER—*(continued)*.

THE LITTLE FRENCH BOY PUTS ON THE PAPER CAP.
LE PETIT FRANÇAIS MET LE BONNET DE PAPIER.

LAST time we left off as I was telling you about the puddings. There are three puddings. Say, *Le premier boudin est du riz, pour bébé.*

"The first pudding is rice, for baby."

Le second boudin est un boudin de conserves, en rouleau.

"The second pudding is a jam roley-poley."

Et le troisième—ha! ha!—le troisième est un grand boudin de Noël!

"And the third—ha! ha!—is a big Christmas pudding!"

Now say, "This pudding is hot."

Ce boudin est chaud.

"It is too hot." *Il est trop chaud.*
"I must blow it."
Il faut que je le souffle.
"Little French boy, will you eat bread?"
Petit Français, mangerez-vous du pain?
Non, non, non, je vous remercie bien.

That is what the French boy says to you in answer. It is, "No, no, no, thank you very much." And he is going to speak again. Listen to him.

Parce que, petit Anglais, j'aime ce boudin de Noël! Ah, c'est délicieux, ce boudin de Noël!

THE CHRISTMAS CARD. *LE ROI DIT QUE LE BOUDIN DE NOEL EST DELICIEUX.*

He means, "Because, little English boy, I like this Christmas pudding! Ah, it is a delicious Christmas pudding!" That is like your Christmas card. Run and get it for our little visitor.

And the little French boy says, *Le Roi dit que le boudin de Noël est délicieux.* He means, "The King says the Christmas pudding is delicious."

Now see what I have brought—bon-bons—we will pull them after dinner; his has a paper cap in it; he puts it on.

J'ai le bonnet de papier. "I have the paper cap."
Regardez-moi, he says. "Look at me."

J'ai fini.
"I have finished."
Je descends.
"I get down."
J'emporte ma chaise.
"I carry away my chair."
Je remonte à cheval.
"I get on my horse again."
C'est un bon cheval.
"It is a good horse."
Un cheval de bois.
"A wooden horse."

Qui ne mange ni déjeûner, ni diner, ni souper.
"Who neither eats breakfast, dinner, nor supper."
Mais il me porte, et maintenant je vous fais mes adieux.
"But he carries me, and now I bid you good-bye."
He is a funny little French boy, is he not?

Le petit Français
Is now gone away;
The pudding and meat
He found nice to eat.

FIFTH LESSON; CINQUIÈME LEÇON.

THE FRENCH BOY AGAIN; *ENCORE LE PETIT FRANCAIS.*

HERE is the little French boy come again, dear children. And I want you to look at him (his name is *Edouard*, that means Edward) from top to toe, and I shall touch him at his ears, and his nose, and his eyes, and his toes, and ask him to tell you the French for everything I touch. Now, I touch his head, and he says:—

C'est ma tête.
It means, "That is my head."
C'est mon cou.
"That is my neck."
C'est mon menton.
"That is my chin."
C'est ma bouche.
"That is my mouth."
Ce sont mes oreilles.
"Those are my ears."
Ce sont mes cheveux.
"That is my hair."
Ce sont mes épaules.
"These are my shoulders."
C'est ma poitrine.
"That is my chest."

C'est mon pied.
"That is my foot."
Ce sont mes ongles.
"These are my nails."
C'est mon dos.
"That is my back."
C'est mon genou.
"That is my knee."

Ce sont mes yeux.
"Those are my eyes."
Ce sont mes sourcils.
"Those are my eyebrows."
Ce sont mes joues.
"Those are my cheeks."

Ah! *C'est mon engelure!* Boo-oo-oo-oo!

"That is my chilblain!" And, poor little Edouard, I have hurt it, and he is crying. Let us see if we cannot make him happy again. Say to him, *Pauvre Edouard!* "Poor Edward!" Say it, all of you.

Ne pleurez pas. "Do not cry."

And say, *Je vous aime, pauvre Edouard.* "I love you, poor Edward."

Et je vous montrerai, "And I will show you,"

De mes gravures, "Some of my pictures."

That is very good. Here are the pictures, and this is what he said about them:—

Ma sœur et sa jolie poupée.
"My sister and her pretty doll."

Mon chien saute par-dessus la bûche.
"My dog jumps over the log.

And you see our little Frenchman is laughing again now. He has forgotten all about his *engelure*, his chilblain. Here are two more pictures.

Ma sœur met sa poupée au lit.
"My sister puts her doll to bed."

Mon chien monte sur la chèvre.
"My dog rides on the goat."

That is right. Now ask him, Ernest, if he has many chilblains. Say, *Avez-vous beaucoup d'engelures ?*

Edouard, pauvre Edouard, avez-vous beaucoup d'engelures ?

Non, non, bon garçon anglais. Je n'ai qu'une engelure. Et j'ai assez d'une, merci !

You do not know what all that means, so I must tell you. It is, "No, no, good boy English. I have only one chilblain, and one is enough, thank you."

But now it is getting late, and Edouard must go.

"John opens the door and finds that it rains."

Jean ouvre la porte et trouve qu'il pleut.

And the little French boy cries, *Il pleut ! il pleut !*

He cannot take his little horse to-day, for it is raining very much, so he takes an umbrella, or *un parapluie*, as he calls it, and as I promised you to walk a little way with him, you must all get under the big umbrella. Oh, what fun it is, to be sure !

JACOB DECEIVES ISAAC AND OBTAINS HIS BLESSING.

SCRIPTURE STORIES.

JACOB AND ESAU.

JACOB'S DREAM.

YOU remember in our last story that you heard about Abraham and his son Isaac; now I am going to tell you about Isaac's two sons, called Jacob and Esau.

Esau was the elder of the two sons, and lived principally by hunting. One day he came in very hungry, and wanted Jacob to give him some food, so Jacob made Esau sell him his birthright, which he had as the elder son, for the food called a mess

of pottage. It was not kind of Jacob to demand Esau's birthright; for God wishes that brothers should be loving, kind, and generous to one another, not selfish or unkind.

When Isaac was very old, and almost blind, he wished to give his first-born son, Esau, his blessing. Now Esau was out hunting, and Jacob, who was his mother's favourite, was told by her to try and get the blessing instead of Esau. So Jacob pretended to be Esau, and by deceiving his old blind father obtained his blessing. This was also very wrong, and he was greatly punished for his deceit.

When Esau came home, and heard how his brother had stolen his father's blessing, he wished to kill him, so Jacob had to flee away, in case his brother should do him harm. Jacob journeyed towards a place called Padan-Aram, where his uncle Laban lived. On his journey he lay down and went to sleep upon the ground, with his head on some large stones which served him for a pillow.

He dreamed that he saw a great ladder which reached from earth right up to heaven, and the angels of God were going up and coming down upon it. This dream comforted him very much in his wanderings, as it reminded him, and should remind us, that wherever we may be, and wherever we may go, God can see us and God can take care of us. When Jacob awoke he kept on his journey to his uncle's house, where he was received very kindly; he stayed a great many years, until he was a very rich man, and married his cousins Leah and Rachel. After a long time Jacob took his wives and children

and his cattle, and started to return to his old home. On his way he heard that his brother Esau was coming to meet him with four hundred men, so Jacob was afraid, for he knew he had acted wrongly towards his brother, and thought that he would kill him. But God softened Esau's heart, and the two brothers met as friends and forgave one another.

MEETING BETWEEN JACOB AND ESAU.

When Jacob was living at a place called Bethel he offered a sacrifice of thanks to God, who had been so good to him, and God told him his name should be no longer called Jacob, but Israel.

In the next story I shall tell you about Jacob's sons, who were twelve in number, and more especially about Joseph, who was one of the twelve.

CHINESE PICKING THE TEA-LEAVES.

CHATS ABOUT COMMON THINGS.

IV.—ABOUT TEA.

LEAVES AND FLOWERS OF THE TEA-PLANT.

LIKE sugar and cotton and coffee, tea is brought to us from far-off countries.

The crisp, fragrant little "curls" we call tea are the dried leaves of a shrub called the tea-plant, which grows chiefly in China, but is also cultivated in a part of India called Assam, and some other parts of the world.

Both India and China are large countries in that part of the world called Asia.

The tea-plant is something like a rose-bush in appearance, and it has pretty white flowers and green leaves. It grows from seeds which are dropped into holes in the ground, a few inches deep and about four feet apart. So easily does it thrive in those countries, that for the first three years it requires scarcely any attention, but grows up quite healthy and strong by itself.

After three years it is strong enough to bear the loss of its leaves, which are regularly picked three or four times every year. The first picking takes place early in April and the second in May. This is the most important crop.

The trees yield well until they are eight or nine years old, when their leaves become poor, and they then die or are pulled up.

In China, from whence by far the greater portion of tea comes, numbers of the people live on little farms, and all the members of the family engage in picking the tea leaves and sowing the seeds, so as to keep up a constant succession of young and vigorous trees.

Each leaf is picked separately, very carefully and very slowly, and then put in baskets made of bamboo.

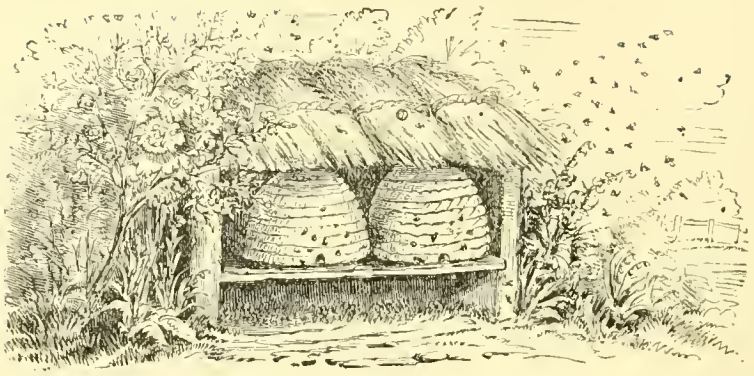
Drying the Tea Leaves: Difference between Black and Green Tea.

When the baskets are full, the leaves are left open to the air and sun for a short time, and then carried off to be dried. This is done by putting them in iron pans, under which charcoal fires are steadily burning. The leaves are put in the pan and constantly stirred round and round, so that all may be equally dried and all the moisture pass off as steam. The leaves are then rolled by hand on tables made of bamboo, and by this means they are twisted up into little rolls as we see them. They are then put back again in the pans over the fires and stirred as before, until the heat drives every atom of moisture away.

If the process of drying is made as quick as possible after picking, the leaves remain green, and the dried leaves are known as "green tea." In black tea the process of drying is not so rapid, and the leaves are allowed to lie in the open air for, sometimes, a whole night. This exposure causes them to be of a darker colour.

When the leaves are quite dry they are poured into chests, which are lined with very thin lead, and inside the lead is a straw-coloured paper, made from the inner bark of a mulberry-tree.

One person pours the leaves in while another presses them down, and, when the chest is quite full, paper is put over the tea, and then a thin lining of lead, which is fastened down so tightly that no air can get in to the tea, and its fine fragrance cannot escape. The chests are then taken to the sea-coast, and put in big ships, which carry them to all parts of the world. The finest of the black teas is called *Pekoe;* it consists of the tenderest leaves of trees three years old. *Souchong* is also a good tea, it means "Small good thing;" and *Congou*, the name of another kind, means "Much care" or "trouble."



PICTURE OF BEE-HIVES, AND BEES VISITING FLOWERS.

[Bees visit flowers to get the sweet honey from them, and when they are laden with the honey, they fly back to their hives to put it in the honey-comb. Bees also do great good to the flowers, and if you read this story you will know something about the good they do.]

STORIES OF THE PLANTS AND FLOWERS;

OR,

BOTANY FOR VERY YOUNG BEGINNERS.

STORY IV.—FLOWERS AND INSECTS.

A FLOWER AND LEAF OF THE ARUM.

[A beautiful flower, in which sometimes insects are kept prisoners. — *See page* 238.]

IN our last story we mentioned, by the way, the fact of insects visiting flowers, and how intent they were on their work. Were they doing any good to themselves or the flowers? Was the fly deriving any benefit from the buttercup when we saw it so busy; and was the bee getting any good out of the blackberry flowers? And were the flowers being benefited by these busy little creatures?

If we could kill all the insects off the earth it would soon become plain that the flowers derive some good from their visits, because a great many of the plants which bear them would cease to exist soon after the killing of the insects. On the other hand, the insects visit the flowers in search of honey, and whatever good they may do to the flowers they are paid by the rich treasure of honey they always take away.

This must seem very curious to you, that two of God's creatures so very different as a bee and a flower-bearing plant, should be so dependent on each other, that if one were

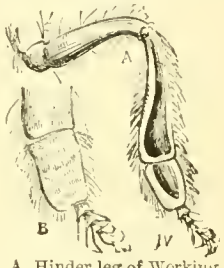
destroyed the other would probably die out. Here, however, is a direct proof. There is not the right kind of bee in New Zealand to visit the Dutch clover which has been planted in the colony, and what is the result? The clover does not produce sufficient seed, so that at length it will in all likelihood die out.

BEE.

Well, then, next time you see a bee sipping the sweet-tasting honey from the flowers, you will know that the advantage gained is not all one-sided, because while the bee is collecting honey, it is also doing a service for the flowers, and the plants which bear them.

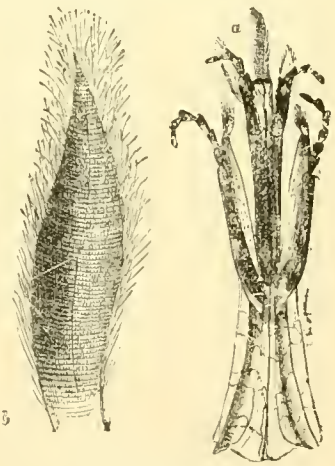
What can this mysterious service be which the insect does for the flower?

We have seen that on the top of each thread in a flower there is a little bag of fine flour, or pollen, which has to be dusted on to the tips of the pistils before the seeds will grow. This is the service the insect renders to the flower—a great service, because no plant would grow from a seed which had not been dusted by pollen, and if you were to set the pollen itself in the ground, nothing would come of it. The pollen must be dusted on to the pistils which contain the young seed; a fly or a bee does this. And these insects bring to the pistils of flowers pollen from other flowers, because it is a curious thing that, as a rule, a flower requires pollen from some other flower of the same kind: the insect acts as the carrier of it.



A. Hinder leg of Working Bee magnified and viewed from outside, showing the hollow to contain the pollen which the bees get from the flowers.
B. Inside of last joints of ditto, showing the brush-like structure.

And a bee is very well fitted for carrying this fine flour or pollen, as will be evident from these considerations. Look at the body of a bee next time you have a chance. You will see that it is covered with hairs, and so are its legs. When it enters a flower, its hairs are brush to brush up against the tiny flour bags, and when they are ripe, and happen to



HONEY-LAPPING APPARATUS OF WILD SEA-BEE.
(*a*, magnified; *a b*, more highly magnified).

burst, the insect is well dusted, and it carries off a supply of pollen held by the hairs of its body and legs. A very smooth-bodied and hairless insect would carry the pollen only a very short distance, for the breeze created by its own wings in flying would blow it off; but a very hairy one, like the bee, carries the pollen until it enters another flower, and then, in rubbing the dusted part of its body or legs against the pistil tops, it leaves there some of the pollen it has brought from another flower.

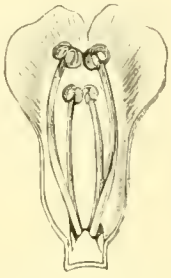
It is a very natural question to ask, why do not flowers make use of their own pollen? It would look as if they had a great objection to doing so, for it appears to be much more common for a flower to receive pollen by insect visits, than for it to use its own. Indeed, in many cases, it is not possible for it to use its own pollen. This is the case with the common Arum or Cuckoo-pint. The little floury pollen bags are arranged on the central pillar which rises in the middle of the leaf; and below them are the pistils. But the curious thing here is that these pollen bags and pistil tops, so near together, do not ripen at the same time. The pistils are the first in the race to ripen, and by the time the pollen bags are ripe, the pistil tops are not capable of receiving any good from the pollen grains. It has happened, however, that insects have been with their load of pollen from some other Arum before this stage of affairs, and when the pollen bags burst, their contents are carried to other Arums. All this is very curiously managed, and the flies that do it are for some time prisoners. This is how it comes about. In the Arum there are a number of hairs attached to the central pillar, just at the neck or narrowest part of the leaf. Below the hairs there is a sort of leafy bulb forming a chamber in which quite a company of small flies may roam about. Well, as each little fly enters the leaf it passes through the hairs, which are all bent downwards, and after passing through this thicket it emerges in the chamber. The little fly is now a captive; it cannot get out of the Arum, for there is no exit, only by the way it entered; and when it tries this, it finds the hairs are now all opposed to its passage, and it has not

Picture of the Arum flower, with part of the flower cut away, showing the pistils and pollen bags.

sufficient strength to break through them. It is compelled to stay there along with other little flies which have been so simple as to enter. However, they manage somehow to live on honey until the little pollen bags burst, and dust them well; at the same time the hairs shrivel up, and the prisoners are set free, as dusty with pollen as millers are with flour. Perhaps before long many of them are prisoners again in some other Arum, whose pistils they charge with the pollen they have brought with them.

Stamens of a flower with Pollen Bags at the top

Two masses of Pollen Grains.



Stamens—two longer and two shorter.

This work of insect visiting is indeed most important work, as you will now have learned. And, perhaps, at the head of all insects we must place the bee, as taking the greatest share of this work upon itself. Sir John Lubbock, who has studied these things well, says of bees: "To them we owe the beauty of our gardens, the sweetness of our fields. To them flowers are indebted for their scent and colour; nay, for their very existence, in its present form. Not only have the present shape and outlines, the brilliant colours, the sweet scent, and the honey of flowers, been gradually developed through the unconscious selection exercised by insects; but the very arrangement of the colours, the circular bands and radiating lines, the form, size, and position of the petals, the relative situations of the stamens and pistil, are all arranged with reference to the visits of insects, and in such a manner as to ensure the grand object which these visits are destined to effect."

What do bees visit flowers for?
Do they do any good to the flowers as well as get honey for themselves?
Do other insects besides bees visit flowers?
Where is the pollen placed in a flower?
How do the bees carry the pollen?
What do the pistils of a flower contain?
What flower is sometimes a prison for flies?
What do the flies live on in the flower-prison?

KINDERGARTEN GAMES AND SONGS.

VI.—THE PENDULUM.

TWO columns of children are formed. With the right and left arm they imitate the motion of a pendulum, always following the music. Or both arms may be used together.

See it swing, keep- ing time, with it we sing, Al - ways
mov - ing to and fro, Nev - er tir'd of
swing - ing so; Com - ing for - ward, go - ing
back, Tick - ing, tick - ing, tic and tac.

HOW NICE TO SWING IN THE SHADE OF THE TREES ON A HOT DAY.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

VI.—WORDS OF FIVE AND SIX LETTERS.

BEING now able to read little sentences of words of three and four letters, Harry went on to learn words of five and six letters,—

toast	faint	haste	bound
roast	paint	paste	hound
boast	saint	taste	round

He learned three of these every day, as before, and found them very easy to learn in this way. So I am sure you will find them easy also.

grate
prate
slate

peach
teach
reach

pears
tares
wares

knight
bright
slight

churn
spurn
learn

string
spring
swing

plough
slough
bough

stool
spool
school

quince
wince
mince

chair
stair
snare

shell
spell
swell

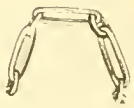
shield
wield
yield

flour
flame
fluke

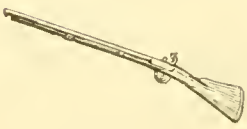
coach
roach
poach

weight
freight
sleight

paul's
walls
halls

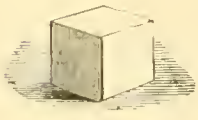
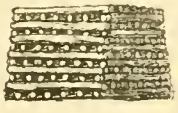


stile chain quill globe
while train spill gloam
guile slain chill glare



polly rifle tongs punch
holly trifle songs hunch
jolly stifle gongs munch

mouse booth shield purse
house bourn wield nurse
souse bound field curse

stags block stack horse
stains clock black force
stamps flock slack morse

GUARD
Guard
guard

DRIVE
Drive
drive

MILLER
Miller
miller

GEESE
Geese
geese

HORSES
Horses
horses

LARKS
Larks
larks

YOUTH
Youth
youth

STRAW
Straw
straw

SWINE
Swine
swine

CHURCH
Church
church

GRIND
Grind
grind

HOUSE
House
house

IMAGE
Image
image

FRUIT
Fruit
fruit

BARGE
Barge
barge

CHAIR
Chair
chair

BRIDGE
Bridge
bridge

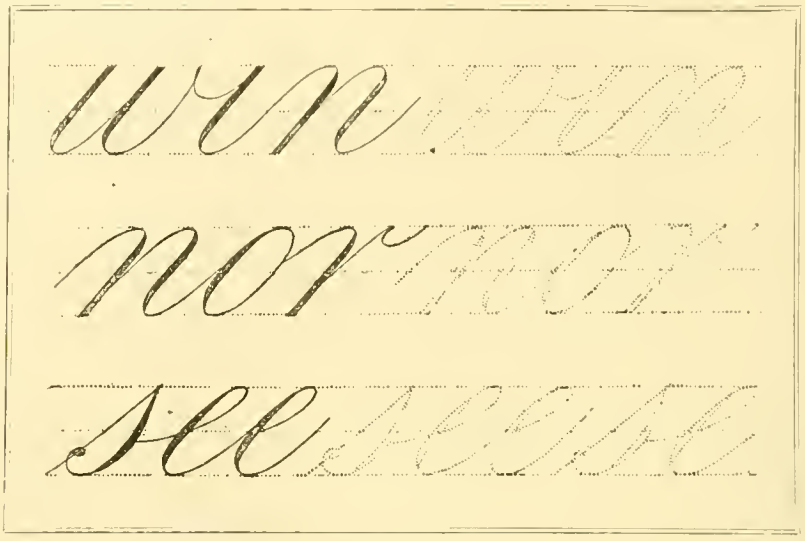
SHEEP
Sheep
sheep

"You may go out for a lit-tle walk," said Ma-ry's moth-er to her one day as she put on her cloak, "but you must keep to the big wide road, or you may get lost in the wood." "Yes, moth-er," said lit-tle Ma-ry, and she kissed her good moth-er and went out in-to the sun-shine.

But af-ter a time she was tired of the big wide road, and she said, "Oh! I must go down this nice lit-tle path." So she was dis-o-be-di-ent and went. Then she lost her way, and was caught so tight in a big bush that she had to un-tie her cloak and hat to get a-way. At last, when she was very foot-sore and weary, she saw a fun-ny lit-tle hut.

Ma-ry push-ed open the door and look-ed in. No one was in the room. There were three bowls on the ta-ble, one very big, one small-er, and one very small; and there were three chairs, one very big, one small-er, and one very small. "That will do for me to sit on," she said, "I am so tired."

So she ran for-ward and sat down. But it broke in pieces at once, and she fell on the floor. Then her father came in. "Why," he said, "how came you to sit on that chair? It was a brok-en chair which I was mend-ing, but had not glued to-geth-er." When she told him how she came there, he said, "dis-o-be-di-ence must be pun-ish-ed."



WRITING MADE EASY.

VI.—LITTLE WORDS.

LEARNING TO WRITE.

THE first day that Amy began to write little words she was greatly delighted. "Now," she said, "I shall soon be able to write a letter to papa."

In the picture at the top of this page you will see some of the little words that she wrote. She began with very easy ones at first, you see, and her mamma ruled lines and made some dotted letters for her to go over with the pen.

"You must take time," said her mamma, "and try to make each letter carefully and slowly. All the down-strokes are to be heavy, and the up-strokes light. Do not bend over the paper, but sit upright, and rest your left arm on the table.

With the fingers of your left hand you should hold the paper, or the copy-book, or the slate, straight and steady. Then you may proceed to write.

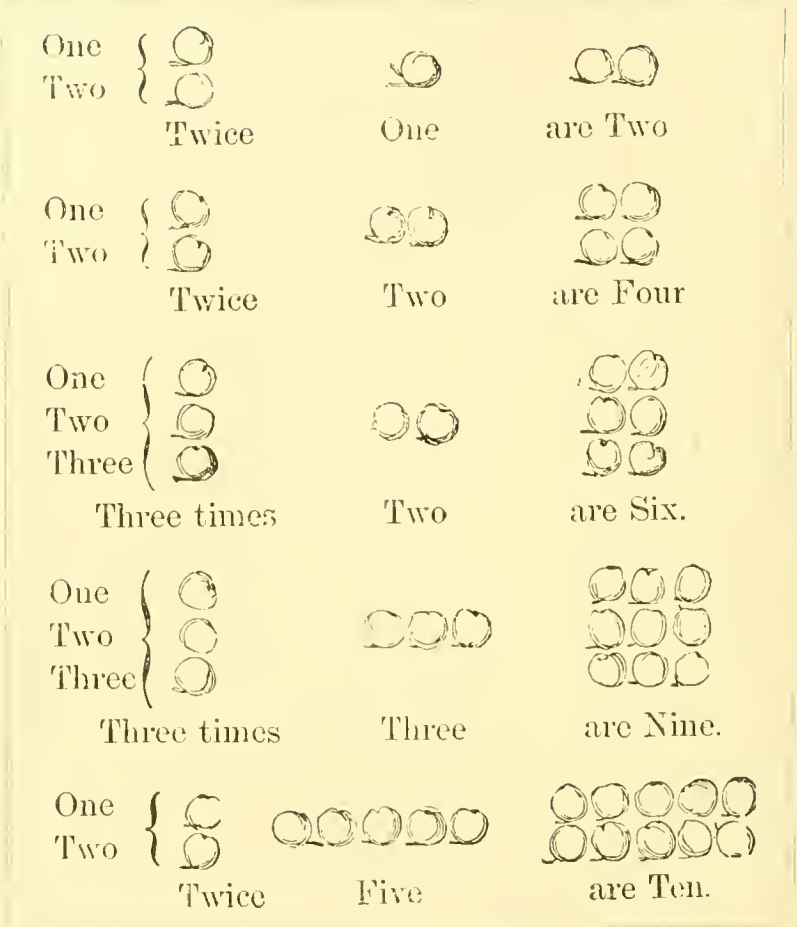
As I have told you before, your little finger must rest on the paper, but you must be careful to see that the *weight of the hand* rests on the

lower side just above the wrist. The little finger should only rest lightly on the paper, because it must move slowly along as the pen moves; indeed some people write well without any of the fingers

touching the paper at all, but it is better that it should rest lightly, as it serves to steady the hand and aids in keeping the letters the same size and on the same level. Both of these things are im-

portant points to remember when you begin to write little words. Look well at your copy, and follow it in every way."

Well, Amy did so, and she wrote a few words every day, for many days. She got on so well that soon her mamma ruled only the two lines for for her—one at the top of the letters, and the other for the letters to rest on—and gave her no dotted letters, only the copy for her to follow.



METHOD OF ARRANGING CUBES OR APPLES ON THE TABLE TO TEACH MULTIPLICATION.

PICTORIAL ARITHMETIC.

MULTIPLICATION.

FIVE TIMES *THREE* ARE FIFTEEN.

YOU have now learned how to add up numbers or things together, and how to subtract or take them from one another. These are the first two rules in Arithmetic, or ways of counting. You must now learn the third way of counting; it is called *Multiplication.*

This is, in fact, a sort of addition, and it saves the trouble of a great many separate addition sums. Thus, suppose you have a great many cubes upon the table, and you arrange them in rows of twos, threes, or fours, until perhaps you have four groups of twos, or six groups of threes, like this:

When counted we find 18. Do we not? Then six times three, or three, six times repeated, make 18.

Again, supposing we arrange the cubes into fours, and make five groups of them. How many would there be then?

Twenty, you say. Then five times four, or four, five times repeated, make 20. You see, Multiplication is like Addition, except that in addition we add different numbers together, while in multiplication we add several of the same number together, such as four twos, five threes, seven nines, and so on.

It may just happen, however, that the cubes are are not always at hand, and it would take a long time to do a Multiplication sum if every figure had to be previously counted with the cubes. I should therefore recommend my little readers to learn the Multiplication table. Supposing we learn the "twice table" first, and then do a little Multiplication sum together.

The "twice table" is as follows; you can count each number with your cubes just to see if the table is right.

THE "TWICE TABLE."

Twice	1	*are*	2	
,,	2	,,	4	
,,	3	,,	6	
,,	4	,,	8	
,,	5	,,	10	
,,	6	,,	12	
,,	7	,,	14	
,,	8	,,	16	
,,	9	,,	18	
,,	10	,,	20	
,,	11	,,	22	
,,	12	,,	24	

You must repeat this over and over again, until you know it perfectly, and you may count out your cubes each time, so as to help you to learn it.

When you know it thoroughly, I will give you a nice little easy multiplication sum to do, and tell you how to do it.

QUESTIONS ON CHAPTERS IV., V., VI.

How many tens are there in a hundred?
How do we write down 100 *on the slate, also* 200, *and every hundred up to* 1,000?
What is one figure called when placed by itself?
What are two figures called?
What are three figures called?
What are four figures called?
What is the third rule in Arithmetic?
Repeat the "Twice Table."

KING JOHN SIGNING MAGNA CHARTA.

THE HISTORY OF ENGLAND IN EASY LESSONS.

THE REIGN OF KING JOHN.

What sort of man John was; the story of Prince Arthur; the signing of Magna Charta.

PRINCE ARTHUR IN PRISON.

YOU will remember that I told you in the last chapter that King Henry the Second had a son whose name was John, and that he behaved very badly to his father. Well, at the death of his brother, Richard I., he became king of England, and he was a very bad king.

We cannot wonder at this, because bad boys generally become bad men; and John was a very bad man. He was not a wise man like his father, nor was he a brave man like his brother. He was a mean, cowardly, cruel man, and did not know how to rule England at all. He seemed to be always quarrelling with somebody, and was so wicked as to put people in prison or to kill them without any reason at all,

but just because his bad temper caused him to dislike them, or because they opposed his bad desires.

THE STORY OF PRINCE ARTHUR.

Many people thought that John should not have been king, but that his nephew Arthur, who was the son of John's elder brother Geoffrey, should have been king instead. And no doubt, according to the law, Arthur ought to have been king.

But John shut him up in prison at Rouen, a town in Normandy (which then belonged to the kings of England), and the poor boy was never seen outside the prison again.

No one knows exactly how he was killed. Some people say that John sent a man, named Hubert De Burgh, to put his eyes out, because he thought the English would never have a blind king. But when Hubert and his men came to do this, Arthur cried so piteously that Hubert felt he could not be so cruel, and so he and his men left him. Then John went himself, with a wicked servant named Maluc, and they stabbed poor little Prince Arthur and threw his body into the river Seine. Now you can see what a wicked, cruel man he was.

THE SIGNING OF MAGNA CHARTA.

John was governing England so badly that at last the people felt they could not let him go on any longer. So several of the nobles and bishops, and gentlemen from all parts of the kingdom, joined together, and they sent word to John that he must promise to be a better king, or they would not let him reign any more.

At first John would not listen to this message at all, and he tried to fight and make another horrible civil war, as there had been in Stephen's time, but he found that he had scarcely anyone to help him. Everybody was against him. So he said that he would meet the bishops and the barons at a place near Windsor, called Runnymede, and would do what they wished. And they met the King there, and showed him a great sheet of parchment, on which they had written a number of very good laws to keep the kings from being unjust and from robbing the people of their land or money, and they made the King agree to what was written, and sign and seal this parchment.

The name given to this writing is *Magna Charta*, which means "THE GREAT CHARTER;" and you must remember this name, because, although it happened so long ago, it is very important to us even now that our rulers should keep the promises King John made to the English people at Runnymede.

PRINCE EDWARD ESCAPING FROM PRISON.

John was very angry because he was forced to agree to the people's wishes, and he tried in every way to break his promises. Then the people tried to make him keep his word, and there was a great deal of fighting and unhappiness, until at last John died. If he had tried to be good and keep his promises he might have been very happy, but he wanted to have his own way a great deal too much, and kings and queens cannot have their own way any more than little boys and girls can.

HENRY III., THE NINE-YEAR-OLD KING.

When King John died, his son, Henry, was only nine years old. What a little boy to be king, you say; and so he was. But he had a wise guardian to take care of him, the Earl of Pembroke, who tried hard to restore peace and order to the land.

When he died Henry behaved so badly, that there was little else but quarrelling and fighting for the rest of his life. He tried to rob people and get a great deal of money from them, and he brought over a number of Frenchmen and put them in the place of English nobles; so the barons, headed by one brave man, called Simon de Montfort, rebelled against him, and took him, and his brave son Edward, prisoner, at the battle of Lewes.

De Montfort then called together the bishops and barons, and certain men from every town and county, to talk together and arrange about the affairs of state. This was called a Parliament, and it was fixed that no English king could make the people pay money without the consent of Parliament. This is very important for you to remember.

After a time, Prince Edward, Henry's son, got out of prison, escaped from his guards on a fleet horse which some friends had conveyed to him, and collected an army to fight against De Montfort. A great battle took place at Evesham, in which De Montfort was killed, and Henry was set free. This was in 1265, and seven years later Henry died.

During the reign of Henry III., the English people first began to make linen from the flax plant, and to use candles instead of wooden torches; the first license to dig coal was also granted to the people of Newcastle for the first time; also gold coins were first used. So you see some improvements were made during this long and unquiet reign, of Henry III., besides the very important arrangement that no king or queen could make the people pay them money, or, as it is called, "pay taxes," without the consent of Parliament.

QUESTIONS.

Was John a good king?
What did he do to Prince Arthur?
Why did he do this?
Where did he sign Magna Charta?
What age was Henry III. when he began to reign?
What did Simon de Montfort make him promise to do?

SOUTH SIDE OF STEPHEN'S GREEN, DUBLIN.

[Dublin is the chief city in Ireland, and is one of the handsomest towns in Europe. The river Liffey runs through it, and there are embankments on either side of the river, with noble walls which form quays for the boats to stop at. There are ten bridges over the river. Dublin has several fine streets, Sackville Street being the finest. There are also several squares, Stephen's Green, of which you see a part in the picture, being one of the largest. Merrion Square is also a very large and fine square.]

GEOGRAPHY.

SOMETHING ABOUT IRELAND—ITS RIVERS, TOWNS, MOUNTAINS, AND LAKES.

BRITISH ISLES.

AS I told you before, Ireland is not far from England. It is on the left, or west, side of England, and is quite surrounded by water; the Channel which is between England and Ireland is not very wide in some parts.

Ireland is bounded on the west and south by the Atlantic Ocean, on the north by the Atlantic Ocean and the North Channel, and on the east by the Irish Sea and St. George's Channel.

Most of the steep stone mountains which Ireland has, stand round the edges, whilst the middle is flat. At one time all this flat part was covered with trees, then the leaves dropped from the branches, making the soil soft and rich, and the small twigs and boughs dropped from the branches, and the trees themselves rotted and fell; and all of this made a great deal of soft soil known as bog, and a great deal of it got covered with fine fresh grass, so that another name for Ireland is the Green Island, or the Emerald Isle, because of all this beautiful grass.

Great numbers of cattle feed on this grass; there are twice as many oxen and cows and bullocks in Ireland as there are in Scotland; and pigs thrive so well in Ireland that there are eight pigs in Ireland for every one pig that there is in Scotland. So great quantities of butter and bacon are made in Ireland and sent over to England and to other places.

THE IRISH PROVINCES AND COUNTIES.

A long time ago Ireland was divided into four portions, or provinces, as they are called: Ulster, Leinster, Munster, and Connaught. They cut Ireland into four quarters, nearly equal in size, and at one time each quarter had a different king to it. Each quarter is divided again into counties, just the same as England, Wales, and Scotland are; there being 32 counties in Ireland altogether, namely, nine in Ulster, six in Munster, twelve in Leinster, and five in Connaught. In all the provinces there are mountains, rivers, lakes, and towns, and I will tell you a little about them.

A FEW OF THE IRISH RIVERS, WITH THE TOWNS ON THEIR BANKS.

Can you see the River Shannon on the map? It is on the west side of Ireland, and is a beautiful river, the longest in the United Kingdom, for it is 224 miles long. On its banks are some fine towns. These towns are Carrick, Athlone, Killaloe, Limerick, and Kilrush. In Limerick beautiful lace is made; and in history you will read of the siege of Limerick, when William of Orange, who was King William III. of England, had thousands of soldiers waiting outside of it, trying to get within the walls. This was in the year 1690.

Can you see the River Barrow? That runs through Kildare and Carlow, and gets into the sea in Waterford Harbour. Look at Waterford Harbour, for it is a very busy place.

There are numbers of big ships waiting to be filled with Irish butter and bacon, and cattle and cheese, and eggs, to carry them to other countries.

Now look at the River Liffey. It falls into Dublin Bay; and, although not a large river, it is very celebrated, because

the beautiful city of Dublin is on its banks, and Dublin is Ireland's chief city.

At Dublin a very rich corded silk is made for ladies' dresses, called poplin; some linen is woven at Dublin, also, and near by, at a place called Balbriggan, there are large places for making the good socks and stockings called Balbriggan hosiery. To the south of Dublin is the county of Wicklow, which has a great number of mountains called "The Wicklow Mountains."

THE WICKLOW MOUNTAINS.

The Erne is another Irish river, with Donegal Bay at the mouth of it, and the Foyle is one more; but I think you must look at the Irish lakes now, because I have told you of the chief rivers. There are a great many lakes, and they are very important.

THE IRISH LOUGHS.

The Irish call their lakes Loughs; and I think you will be able to put your finger on a great many loughs. Lough Erne you can see, and there is an Upper Lough Erne as well as a Lower Lough Erne. They both belong to the River Erne, and both have many little tiny islets on them, that look lovely in the midst of the smooth clear water.

Lough Neagh is peculiar, because the water of it can *petrify*, or turn things into stone: and there are three beautiful Loughs in the Shannon river, where it widens out very much; they are called Lough Allen, Lough Ree, and Lough Derg.

JOSEPH SOLD AS A SLAVE BY HIS BROTHERS.

SCRIPTURE STORIES.

THE HISTORY OF JOSEPH.

JOSEPH PRESENTING HIS FATHER TO PHARAOH.

JOSEPH was the youngest but one, of Jacob's sons, and he was his father's favourite, and his father gave him a coat of many colours. For these reasons his elder brothers hated him, and so jealous did they become that they determined to kill him. One day Joseph was in the field with his brothers, and they cast him into a deep pit, knowing he could not get out by himself, and hoping

that he would die there. Reuben, who was the eldest of all the brothers, was not so cruel as the rest of these wicked men, and knowing how unhappy Jacob would be if anything happened to his favourite son, he meant to return to the pit and save Joseph.

But when Reuben had gone away, they took Joseph out of the pit, and sold him to some Ishmaelites who were passing near at the time.

But the wicked brothers took Joseph's coat and dipped it in the blood of some animal, and then took it home to Jacob, pretending they had found it, and that Joseph must have been torn to pieces by some wild beast. Poor Jacob believed them, and mourned long and bitterly for his little son.

JOSEPH IN EGYPT.

JOSEPH was taken by the Ishmaelites into Egypt, where they sold him to a man named Potiphar, who was a captain in the king's guard of soldiers. The king's name was Pharaoh, and as time went on and Joseph worked hard and behaved so well, the king loved him very much.

One night Pharaoh had a dream which troubled him a great deal, and God told Joseph that the meaning of Pharaoh's dream was that there would be seven years of plenty in the land, and then seven years of famine. And Joseph told Pharaoh this, and during the seven years of plenty Joseph stored up great quantities of corn, so that when the famine came the people should not starve.

There was also famine in the land where Jacob

lived, and he, hearing there was corn in Egypt, told his sons to go and buy some. They came to Joseph, but did not know him, for he had fine clothes on and rings upon his hands, and, as it was so many years since they had seen him, they thought him dead. At first Joseph pretended to be harsh and angry with them, but he was too

JOSEPH FORGIVING HIS BRETHREN.

good and kind to make them unhappy, though they had been so cruel to him; so he told them who he was, and forgave them for selling him to the Ishmaelites. He then sent for his old father Jacob, who lived with him till he died.

Joseph was happy because he was good, kind, and forgiving, and God always blesses and helps those who love and obey Him.

A DEAR LITTLE GIRL RUNNING AFTER ANOTHER LITTLE GIRL, TO PLAY WITH THE KITTIES IN THE GARDEN; AN OLD PUSSY-CAT IS RUNNING WITH THEM.

[In this sentence, *a*, *an*, and *the* are the *articles*; *a* and *an* are indefinite articles, and *the* is the definite article.]

GRAMMAR.

III.—SOMETHING ABOUT ARTICLES.

"HA! HA! I HAVE STOLEN A PIECE OF MASTER BOBBY'S NICE CAKE!"

[In this sentence *a* is an indefinite article, because it does not point out any particular piece of cake, and we will hope Bobby has more than one piece.]

I HOPE you have quite learned all that I told you about the Noun, which is the first of the nine parts of speech. Now, the second part of speech about which I shall tell you is called an Article. There are only three words which belong to this part of speech, so they will be quite easy for you to remember.

They are—

A, AN, and THE.

A and *an* are called Indefinite Articles, because they do not point out anything in particular. But *the* is the Definite Article, because it defines or points out the particular object about which we wish to speak.

Thus if you say, "Pass me *a* book," you mean any book, but if you say, "Pass me *the* book," you mean some particular book; or if you had been out for a walk and had seen a tree blown down, you would say, "I have seen a tree blown down," but if you wished to tell *which tree* it was, you would say, "I have seen *the* tree near the barn, or near the mill, blown down."

Thus you see there are two kinds of Articles—the definite and the indefinite. The definite is *the*, and the indefinite is *a* or *an*. The word *an* is really the same as the word *a*, for it

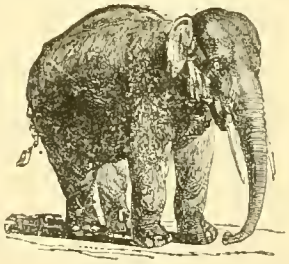
AN EAGLE.
We do not say *a eagle*, because the word eagle begins with a vowel.

AN OWL.
We do not say *a owl*, because the word owl begins with a vowel.

means the same, only whenever *a* comes before a word beginning with a vowel we say *an* instead, because it sounds better, thus, *an apple* sounds much better than *a apple*: *an elephant* sounds better than *a elephant*; so you must remember always to say *an* instead of *a* before a word beginning with a vowel.

An is also used instead of *a* before words beginning with an *h* that is not sounded, thus we say *an hour* instead of *a hour*, but of course *a* is used before words beginning with *h* that is sounded or aspirated; thus, we say *a horse*, *a hut*, *a hat*.

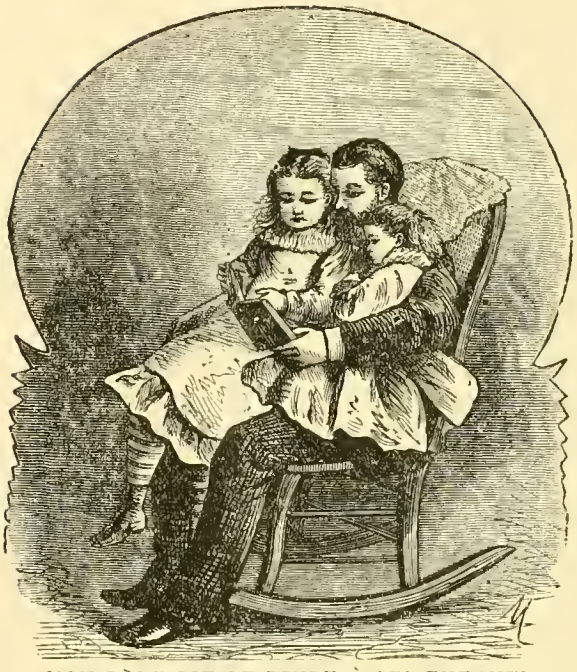
A WOLF.
We say *a wolf*, not an wolf, because the word does not begin with a vowel.



AN ELEPHANT.
We do not say *a elephant*, because the word elephant begins with a vowel.

In the phrase, A man, *a* is an indefinite article, because it does not point out any especial or *definite* man, but means any man. In the phrase *an apple*, *an* is also indefinite, because it does not mean some particular apple, but means any apple.

The is a definite article, because in saying, The carts, you mean some particular carts, which happen, perhaps, to be passing your window, or are lodged in your stable. So *the* is the *Definite* article, *a* and *an* are *Indefinite* articles.



MON PÈRE LIT LE LIVRE À SES ENFANTS.
MY FATHER READS THE BOOK TO HIS CHILDREN.

EASY LESSONS IN FRENCH.

MON, MA, MES; MY.

OH! QUE LE CHAT EST DROLE.
OH! BUT THE CAT IS DROLL.

I HOPE you noticed that Edouard sometimes said *mon*, and sometimes *ma*, and sometimes *mes*, for the English word *my*. He was quite right to do so. Now I want to tell you why.

Mon is masculine, *ma* is feminine, and *mes* is plural, thus,—

Mon père, my father.
Mon frère, my brother.
Mes bottes, my boots.

Ma mère, my mother.
Ma sœur, my sister.
Mes pommes, my apples.

There is no neuter in French, everything is either masculine or feminine, so when you learn a

word you must learn also whether it is right to say *mon* or *ma*, *le* or *la*, &c., before it. *Le*, *la*, and *les*, as I told you before, are the masculine, feminine, and plural for *the*.

Now try to read these few little sentences,—

Mon père lit le livre à ses enfants.
My father reads the book to his children.

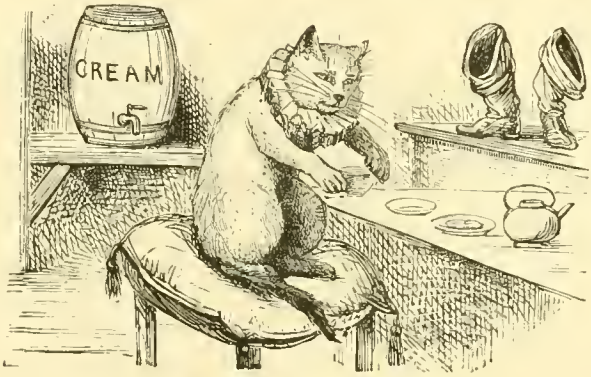
Mon frère a perdu ses bottes.
My brother has lost his boots.

Ma mère est une bonne mère.
My mother is a good mother.

La fenêtre est ouverte.
The window is open.

La table est brisée.
The table is broken.

Ma sœur a mangé ses pommes.
My sister has eaten her apples.



THE CAT IS DRINKING THE MILK—*LE CHAT BOIT LE LAIT.*

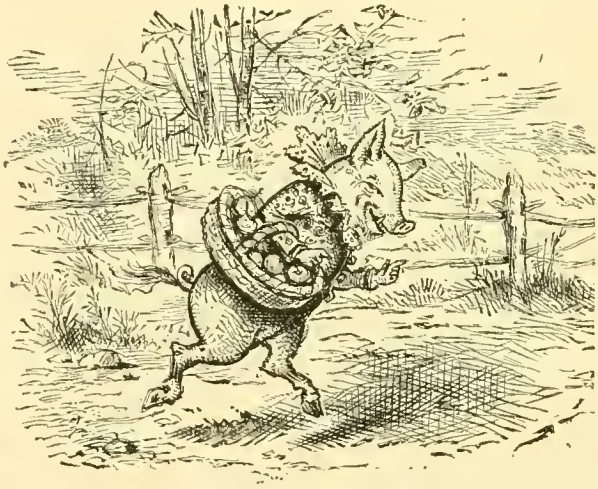
Now in these sentences, you see, we say, *mon père*, *le livre*, and *mon frère* and *le chat*, and *le lait*, because these words in French are all masculine. But we say *ma mère*, *la fenêtre*, *ma sœur*, and *la table*, because these words in French are all feminine. So also we say *bonne mère*, not *bon mère*, because *bonne* is the feminine and *bon* the masculine for "good." Thus it would be *mon bon père*, my good father; *ma bonne mère*, my good mother; *mon bon frère*, my good brother; and *ma bonne sœur*, my good sister.

Here are a few more little sentences,—

Mon bébé est un bon bébé.
My baby is a good baby.
Mon âne est un bon âne.
My donkey is a good donkey.
Il marche, et il mange, et il dort.
It walks, and it eats, and it sleeps.

Le blé est mûr.
The wheat is ripe.
Ce cheval est à moi.
This horse is mine.
Ce fouet est à moi.
This whip is mine.

Now tell me whether *bébé*, *âne*, *blé*, *cheval*, and *fouet* are masculine or feminine in French?



LITTLE MASTER PIG IS RUNNING TO MARKET.
LE PETIT MAITRE COCHON COURT A LA HALLE.

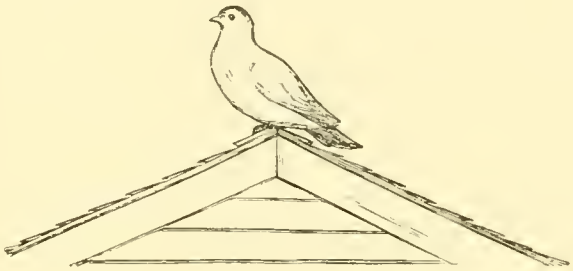
Now here are a few more sentences,—

Dans ma boîte, j'ai mon chapeau, et mon habit, et mes gants.
In my box I have my hat, and my coat, and my gloves.
Je vous écris une lettre.
I write you a letter.

Ma poule est ici.
My hen is here.
Ma balle est par là.
My ball is over there.
Ma vache est un bonne vache.
My cow is a good cow.

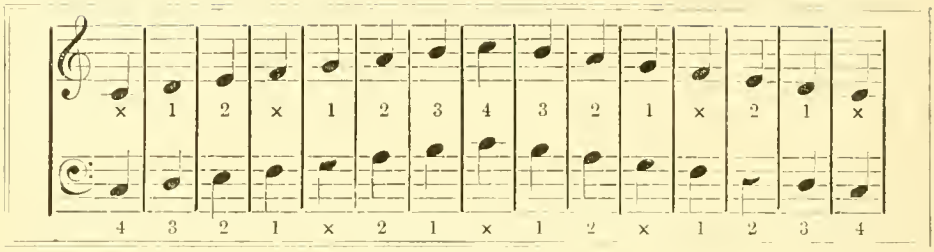
Now tell me whether *boîte*, *chapeau*, *habit*, *lettre*, *poule*, *balle*, and *vache*, are masculine or feminine?

LANGUAGE PICTURE LESSONS.—No. 4.



English—A Dove on the roof of a house.
French—Une Colombe sur le toit d'une maison.
German—Eine Taube auf dem Dache eines Hauses.
Latin—Columba in tecto domûs.

English—The boy finds the hen in the garden.
French—Le garçon trouve la poule dans le jardin.
German—Der Knabe findet das Huhn in dem Garten.
Latin—Puer invenit gallinam in horto.



THE SCALE OF C.

[This should be played with both hands together, as a good exercise for the fingers.]

MUSIC AND SINGING.

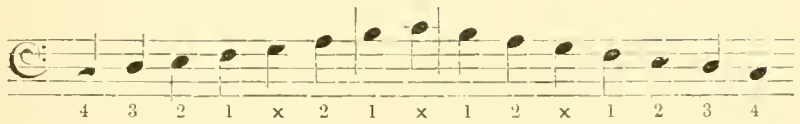
PLAYING THE SCALE OF C WITH BOTH HANDS.

C BELOW THE STAVE.

IN singing the scale of C you may begin at the C below the stave, and go up, perhaps, as far as the second F; after that you will find your voice cannot reach the higher notes without straining very much, and perhaps you may not be able to go so far even as F. If you are only *playing* the scale of C you may go just as high up as your piano will let you, and you will find it very good exercise for the fingers.

To play the scale of C with the left hand, you must finger it as follows: Put the fourth or little finger upon the C represented by the second space in the bass and use all your fingers until you come to the thumb; this brings you to G, pass the second finger over the thumb on to A, and then B and C are played with the two remaining fingers—the first and thumb. To go back again, put the first finger upon B and the second upon A; now pass your thumb under the second finger on to G and use all the remaining fingers, ending with the fourth finger upon the C you began with.

Here is the scale of C in the bass—

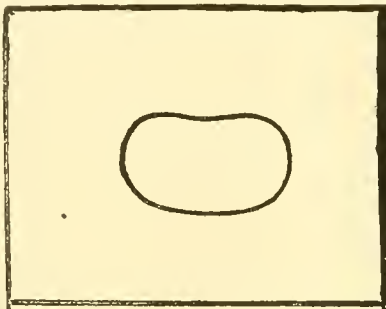


The two notes which are enclosed are B and C. A, as you know, is the fifth line in the bass, so B must be the first note above A. B is a *space*, and C is the first *line* above the stave in the bass. This, you see, has a short line through it to show that it is a line, and not a space. Do not forget its position upon the piano. It is quite easy to remember when playing from printed music which notes are high and which are low, because a high D is written thus, while the lower D is written thus, This same rule holds good with all the notes.

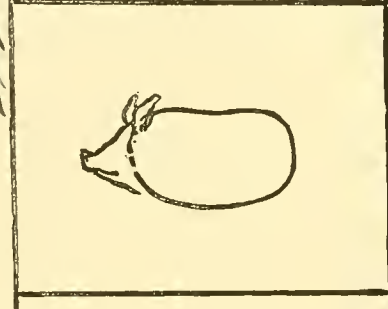
To exercise the fingers, play the two hands together, as in the picture at the top of this chapter, and sing each note as you play it. Another advantage in singing the notes as you play them is this: supposing you are well acquainted with the voice of the bird C or E or D and you see either or all of these notes in printed music, you are so familiar with the *sound* of them that you know their tune without the trouble of going to the piano to play them. This is called *reading* music, so that in time, when you know all the birds' voices, you may take up a piece of music or a song and just *read* it off, though you have never heard it played on the piano. Do you understand this?

COMICAL DRAWING LESSONS.

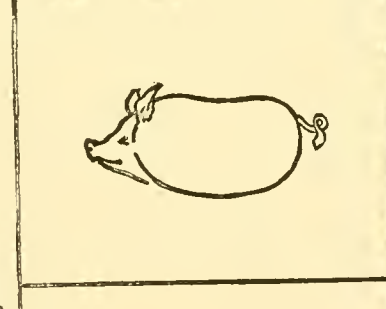
NO. III.—HOW TO DRAW PIGGY.



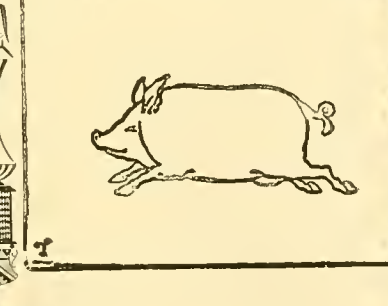
The Body of Piggy
is shaped like a bean
Except when he's poor
and uncommonly lean



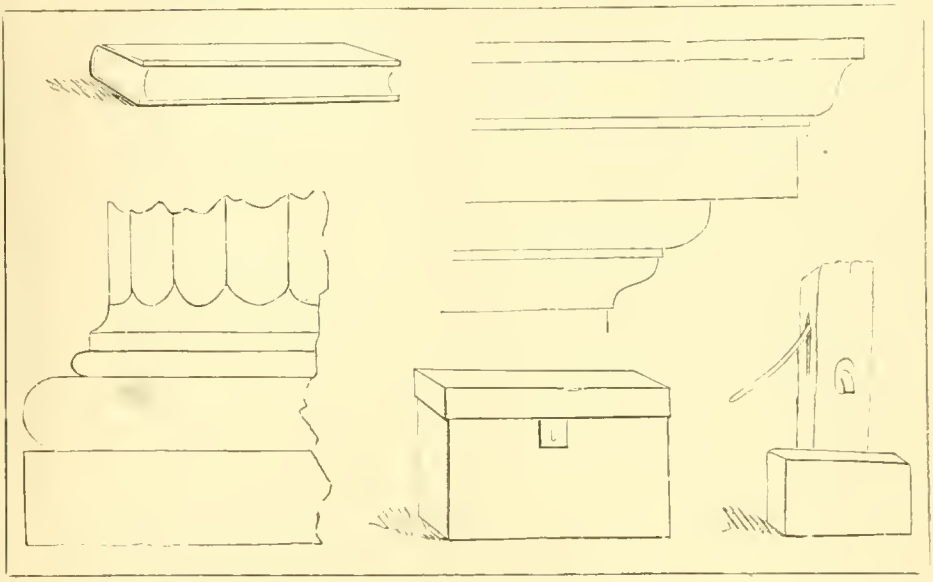
Then give him an ear
and a long handsome snout
For the last is so useful
in rooting about.



Then a bright little eye
he must have without fail.
At the other end of him
a small curly tail.



Then give him four feet
and you have a whole pig
Who can run for his food
be he little or big.



EASY OBJECTS FOR PRACTISING DRAWING.

DRAWING LESSONS FOR THE YOUNG.

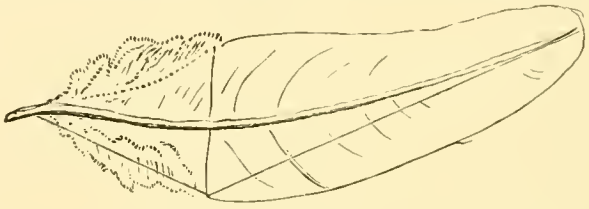
NEED OF CONSTANT PRACTICE FROM NATURAL OBJECTS—DRAWING A WOOD-PIGEON'S FEATHER.

OUTLINE DRAWING FOR PRACTISING EASY CURVES.

AGAIN we would advise the habit of constant practice in the drawing of easy objects, and especially drawing from some simple natural object. Too much cannot be said upon this subject, for the benefits to be derived from it are very great, and we have records without number of great artists having worked in this way. All beautiful natural objects will afford materials for practice. Leaves, feathers, and shells can almost always be procured, and then we can go on from them to larger and more complicated things, such as limbs and portions of animals, until we can manage the whole of some creature; or we may take portions of plants or trees, until we can attempt a whole shrub.

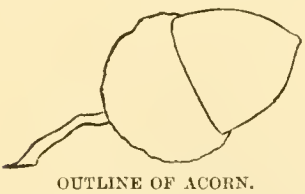
And now let us go back to our old friend the wood-pigeon's feather. It is still lying before me as I write, and the lamp shines on it and throws a shadow from it on the blotting pad, and this brings out a great variety of its beauties, though some of them can only be properly seen by clear, fresh day-light.

Suppose we have drawn the centre quill; next we have to get the outline of the feather itself, and this must be at the right distance from the quill, must curve properly up to the end. How are we to get the right distance? We do not always draw a thing the exact size that it is, so we cannot measure; we must judge by the angles or directions that a certain point is from two or three other points. If we take the place where the feather is broadest we see that this is about one-third of the way along the stem; the outline then is lowest in a line immediately below this point—and this lowest point has certain definite bearings towards the two ends of the quill.

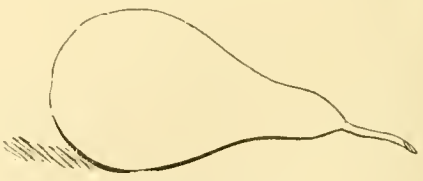


WOOD-PIGEON'S FEATHER.

These bearings will determine the actual spot. Then we must make the curve of the general outline, noticing that it is not regular, but bends in at places and then bulges out again. And so, too, at the top we must do the same thing again. Perhaps you will find the top easier than the bottom, for you will see the line more distinctly as dark against the light blotting paper than the bottom line, which looks rather light against its own shadow on the paper. One thing more we may notice, and that is, that we are obliged to mark the light line where the lighter feather touches the dark shadow, with the same pencil which gives a dark line, as the other lines which we mean to be dark.



OUTLINE OF ACORN.

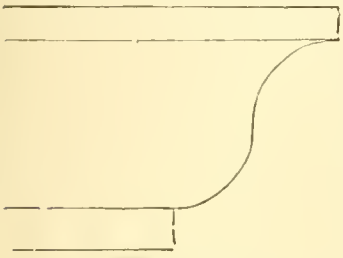


OUTLINE OF PEAR.

Simple Natural Objects for drawing Outlines.

The shadow itself, too, will give us another line, the curve of which is different from any that we have had before, and so in this one little object we have a number of lines, all of which

require care and observation to notice, and delicacy and neatness to draw. We must now leave our feather for the present, though there are innumerable other beauties of colour and shade, to which we cannot at present allude.



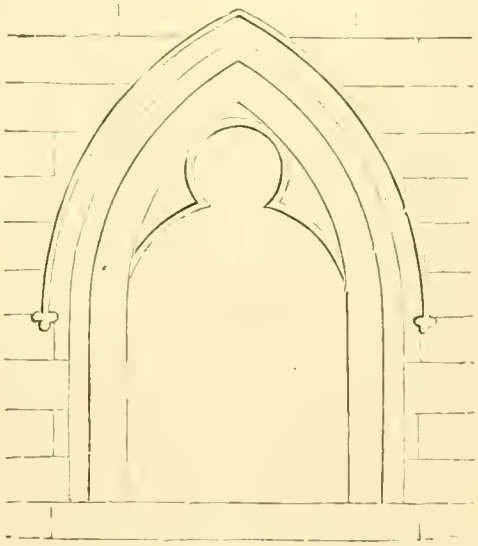
OUTLINE FOR PRACTICE.

Almost every natural object will give us beautiful lines, but it will not do to take too difficult figures. Simple leaves present us with exquisite curves, whereas minerals will afford practice in straight lines: and whilst we are drawing these various objects we are learning much about their shapes which we never observed before.

There is another advantage we may gain, too, from this kind of practice, if we will. We may teach ourselves to draw from memory, a habit which cannot be too early cultivated.

DRAWING FROM MEMORY.

We must note our points of failure and make a fresh attempt another time, not immediately, when we are tired of it, but after an interval, when it comes fresh again. After one or two unsuccessful endeavours, perhaps, at last we are fairly satisfied for the present. Then we may try and recall all the steps we have taken, and without having the object or our own drawing of it in sight, we may try to draw it from memory. It will not be so difficult. In fact, in proportion to the difficulty we have had in making it satisfactory at first, so shall we find it the easier to remember the various steps we have taken. Each bearing and each line will come back to us easily. When the drawing is accomplished we may compare this with the original drawing and the object, and we can thus correct our faults and



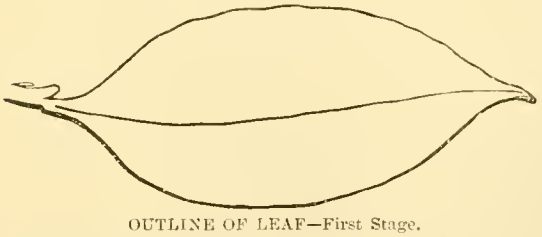
Outline Sketch of a Gothic recess in a wall.

do the whole over again at another time, until the whole is so impressed upon the mind as not easily to be forgotten. In this the person who draws may again imitate the person who plays even to better purpose, for the one remembers his own copy of nature, and the other only recalls the work generally of another man.

One great advantage that may result at a later period from this drawing from memory is that it will lead hereafter to drawing pictures entirely by memory. At first we must keep ourselves to reproducing those pictures which we have already done, but after a time you will find that it is easy to fix pictures of things in the mind only, and this exactly in the same way as we should upon paper, going over each line and each angle as if the pencil were following the eye. The picture is then really painted in the mind, and it may, with more or less success, as the process has been more or less completely done, be produced when materials and conveniences are at hand. We do not recommend the beginner to do too much in this way. It will be far better at first to be content with recalling those simple drawings that have been done satisfactorily. Every now and then we shall be urged on by the memory of a face, or a position, or the marked form of some well noted object, to try and copy it from memory: the process of drawing in our heads will help us to do this, but it will be as well not to urge the mind to try it unless it is almost impossible to resist the desire, and then it should be done in the way explained above.

DRAWING THE OUTLINES OF A LEAF: CONSIDERATION OF SIZE OF PICTURE.

Let us take a leaf as we took the feather. The way of drawing this is almost the same. We may begin by roughly indicating the central rib by a thick light mark made with a soft pencil, taking care to get the main direction and curve right, and the proportion the size we require it. This is one of the difficulties often felt at first, how large does a thing look? Nothing ever looks any particular size except by comparison,

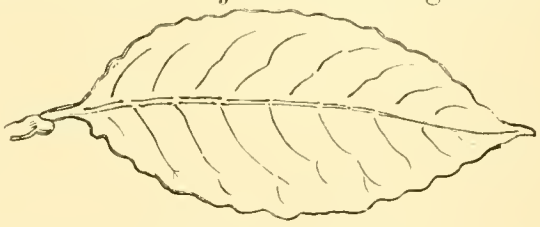


OUTLINE OF LEAF—First Stage.

as you may see by noticing engravings of various sizes, all different from the original picture. Every object looks larger or smaller as you have it near to, or farther from you, and so every drawing requires to be looked at closer or at a greater distance, according to the size of the objects portrayed. Meissonier, a great French painter, would represent some two thousand or more horsemen and some miles of country on a canvas not three feet long, with Napoleon and his officers distinctly recognisable, though horse and man together were not a quarter of an inch high. Many of the old Italian masters, and some of the modern French painters, draw their figures considerably larger than life-size. It depends entirely upon the proposed position of the picture and the feeling and execution of the artist.

DRAWING THE VEINS OF A LEAF.

What has to be considered is, how large a portion of your paper you wish to employ with the representation of this one object; or, on what amount of space can I fairly get in all the detail I want to express in a certain object? Having settled the size in your mind, the relative position of each part must be determined by the bearings of one line upon another. Of course one principal line, like the central rib of the leaf, will be sufficient guide, if there is one such in what we desire to draw: but whether there be or not, having once chosen our proportion, all parts must be made to correspond to the size originally chosen. To go on with our leaf, the outline on each side must be marked in the same general way with a broad light line, which will indicate the general curve and the principal indentations upon the main curve. Perhaps, if any difficulty is found in doing this, it will be well even to take another intermediate step, by giving first a light thin line which shall only indicate the general curve, and then over this making the broader and darker line which will follow the smaller variations in their main deviations. When this is done the whole may be made more accurate still by nearly



OUTLINE OF LEAF—Second Stage.

rubbing out the line already done, and with a finer, harder pencil marking out all the little curves and irregularities that can be noticed. In the same way the two sides of the central

OUTLINES AND VEINS OF LEAVES, FOR PRACTICE.

rib can be distinguished and the little side ribs indicated, taking care to put them at their proportionate distances, and to see that they start from the right projections in the outline of the leaf. Now the outline is all marked in, it will be necessary to go over the whole again to give a proper depth to each line, for the slightly marked differences require only a very light line, whereas a total change of character demands a firm, strong line. The under side, too, should be indicated more firmly than the upper.

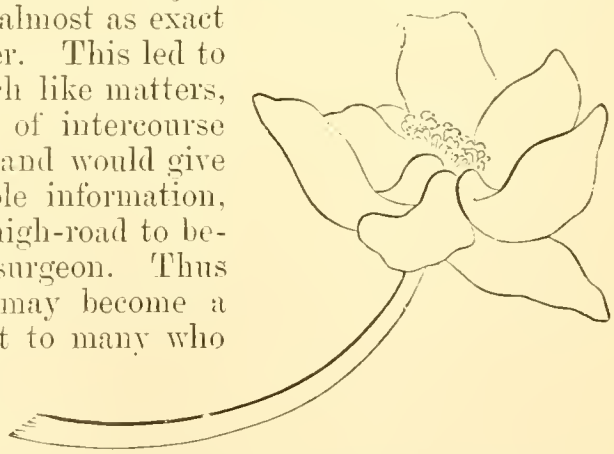
Now, in drawing all such objects as the above, feathers, leaves, flowers, fruits, shells, insects, or whatever else attracts the taste or the fancy, more may be acquired than the mere practice of the lines. Anyone who thinks at all will be all the

OUTLINE SKETCHES OF FOOT AND HAND, FOR PRACTICE.

while learning something about the objects themselves, and will be acquiring a knowledge of the laws according to which these natural objects are produced. He will note that the veins in the leaves of one kind of plant are arranged in a

manner quite distinct from those of another, that the markings of the pansy are on a different system from those of a pelargonium, and so on. This knowledge is useful in itself, for if called upon to illustrate a book on botany, for instance, the artist will not make those gross mistakes which would make his drawings valueless for all scientific purposes. We once heard a Royal Academician, since dead, refer to his early days, when he earned his daily bread by drawing illustrations on the wood such as we have spoken of above, and how he thus acquired a knowledge which had greatly assisted him in his after career. A distinguished surgeon once told us that he owed a great portion of his success in his own profession to his having learnt to draw when a boy at school. When he first began to study anatomy, the professor whose lectures he was attending was writing a book which required illustrations: the professor himself was unable to draw, and he could not get a professional draughtsman who knew enough of anatomical topics to be able to bring out the characteristic features he wished to have delineated, so it fell to the young student to assist his professor. He was obliged to enter thoroughly into the subject of the work, and thus to acquire a knowledge almost as exact as that of his teacher. This led to great interest in such like matters, and to a good deal of intercourse with one who could and would give him the best possible information, and he was on the high-road to becoming a first-class surgeon. Thus it is that drawing may become a most useful assistant to many who do not necessarily intend to become artists. To the artist it is, of course, an absolute necessity, but in many other callings drawing may be made a help and useful assistant in furthering the work of life.

IVY STEM AND LEAVES.



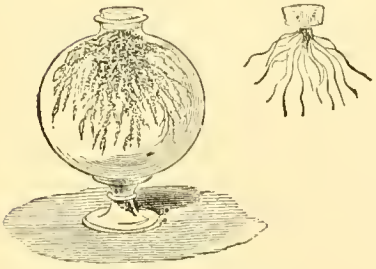
OUTLINE SKETCH OF FLOWER AND STALK.

A VERY SIMPLE EXPERIMENT.

Among many other things, Chemistry tells us of what the soap, you use in blowing bubbles, is made.

CHEMISTRY FOR CHILDREN.

CHAPTER I.—WHAT IS CHEMISTRY?



THE LEAD TREE.
A very pretty experiment.

IF you do not often ask questions you are unlike nearly all other children, as little boys and girls are noted for the many curious questions they are always asking. We do not blame them for it, because it is well that they do so, for how could they otherwise get to know all about things, if they never were to inquire about them?

Perhaps you have many a time asked questions about the things around you. For example, you may have asked,

What is the wind? or, What is the air we breathe? or, What is there in the sun, and what in yonder twinkling star? or, Why does iron rust, and what is it painted for?

SOME WONDERS THAT CHEMISTRY TELLS US.

Now, Chemistry is the science which teaches one how to answer such questions. It tells us some strange tales about the common things around us. It tells us that the very substance which blows up collieries burns quietly every night at your gas-jet; and that the other substance which chokes those poor colliers who have not been killed by the explosion, rises harmlessly from the same burning gas flame; that there is not much difference between one of the finest of opals and a bit of worthless sandstone in the street; that the canful of water you have taken out of the river was on its way to the ocean, carrying some of the material out of which a mussel or some other fish would have tried to make its shell; it tells us, moreover, what the soap you used when blowing soap-bubbles, is made of, and what it is that causes a cork to fly out of a ginger-beer bottle when the string with which it is tied has been cut, together with many other interesting things.

WHAT MAKES THE CORK FLY OUT OF A GINGER-BEER BOTTLE?

Chemistry teaches its lessons by means of experiments; here are a few.

Experiment I.—Making a lead-tree is a pleasing experiment. Sugar of lead, which is poison, is obtained from the druggist and dissolved in water. The dissolved sugar of lead is then placed in a bottle. A zinc stopper is made for the bottle, and through the middle of it a number of brass wires are fixed. When the wires are placed inside the bottle and the zinc stopper is pushed into its neck, the lead in the sugar of lead begins to collect on the brass wires and form a nice tree. When you have learnt all about such experiments you will find them to be exceedingly interesting.

Experiment II.—When a bit of sodium is thrown on to water, the water appears to burn. The water is being destroyed by the

sodium. You may purchase sodium from a druggist, who will give it you in a little bottle filled with rock oil. Only throw a small piece on the water, you must cut it off the big bit with your knife.

THE BURNING OF SODIUM IN WATER.

Cinderella and the Glass Slipper is an interesting tale, but it is neither so interesting nor so instructive as the tales which chemistry tells, and these latter have the advantage of being quite true, and sometimes extremely useful. Chemistry tells us of all sorts of changes which are taking place around us, of millions of curious events which are happening every day among the substances we see. These changes take place generally in a silent and unobtrusive manner, for when Nature does her work she is not fussy, but silent and deliberate, and thus sets us a fine example to follow.

Now, if our forefathers had not been inquisitive, and had not tried to learn all about the things around us, and what is happening to them, we at the present day should have known little or nothing. But there were many men, in times gone by, who were fond of making experiments, and trying to learn about the things around them. They believed they could make a liquid which should always keep people young. They called this liquid "The Elixir of Life." In this picture you see one of these old alchemists trying to distil this liquid. We now know that such a thing is impossible; but, in trying to find out that, they found out other things which have been very useful to us. But for their efforts our ignorance would have been evident in our discomfort. We should have had no nice and comfortable houses to live in; no dresses to put on of every colour of the rainbow; and no lights such as those we now use to light up our rooms of an evening. Indeed, one may say that the great difference between a wild, naked savage and the

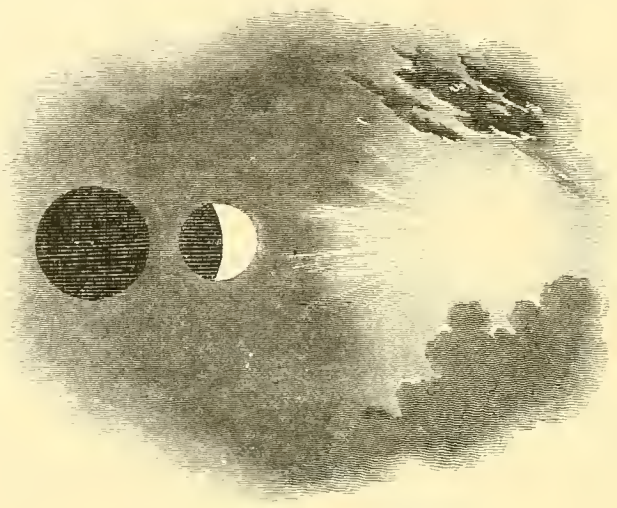
AN OLD ALCHEMIST TRYING TO MAKE "THE ELIXIR OF LIFE."

well-dressed gentleman one may meet in any English street, is mainly owing to our having obtained so much useful information about the things on the surface of the earth—how they behave to each other, and the uses to which one may put them. One of the wisest of savages could not tell you what air, stones, wood, coal, glass, and most other common things are made of. A Zulu would be puzzled, nay bewildered, if asked what takes place when one is breathing; what is the difference between lime and chalk; why water from wells is soft in some parts of the country, while in others it is so very hard that the washerwoman has to use a great deal of soap; why the sea is salt; and what happens when things burn. But a civilised man who had learnt a little chemistry would answer such questions straight off; indeed, you will be able to answer them after reading these few simple lessons.

YOU WILL FIND CHEMISTRY A GREAT AND INTERESTING SCIENCE.

Chemistry is a great science. Wellington and Nelson were great men, because the soldiers and sailors under their directions obtained wondrous victories over England's enemies on land and sea. Judged in the same way, chemistry is great, because men of science, under its directions, have obtained great victories over Nature. Thus, for example, they have ascertained how the nourishment taken out of lands by many years of crops may be exactly replaced; they have made paper out of old rags or grass; they have shown how cotton may be made explosive, so that it will go off in flame like gunpowder when a light is applied to it; they have made beautiful dyes out of the blackest of coal tar; and they have made thousands of other discoveries and improvements, all of which prove that chemistry is a great science, and one that has done man a great amount of good.

It is this great and interesting science that we wish to introduce to you. You may find some little difficulty, perhaps, in studying it, but then you know very well that there are few things that are worth the having that are ever obtained without trouble, unless they be presents. One, however, cannot make a present of knowledge; both the crowned monarch and the humble peasant have to obtain it by working for it.

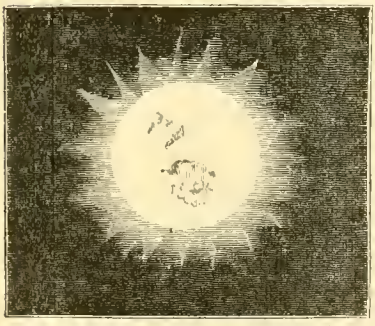


AN ECLIPSE OF THE SUN.

[The bright globe on the right is the sun; the globe partly black and partly white is the moon: and the dark globe is the earth. You see the moon in going round the earth has come between the earth and the sun, and shut out, or eclipsed, the light. Have you ever seen an eclipse? I have. I will tell you what it was like. It began about eleven o'clock in the morning, and when I looked at the sun through a bit of smoked glass it seemed as though a little piece was taken off the sun. This was caused by the moon slowly coming between, and by degrees the sun seemed quite blotted out, and it was quite dark and chilly. All the birds went to roost: they thought it was night. Then, after a time, a little bit of the sun appeared, until the moon quite passed over its face, and then it shone out as bright as before.

STORIES OF THE SUN, MOON, AND STARS.

III.—A LOOK AT THE SUN.



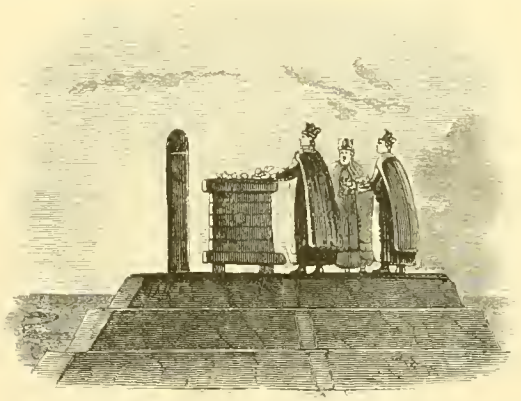
THE SUN SEEN THROUGH A DARK GLASS, OF A TELESCOPE.

IF you tried to look at the sun you would find that you could not do so, because the glare would be so bright that it would dazzle your eyes. But if you looked at it through a piece of red glass, or through a piece of lightly smoked white glass, you would see what appears to be a large round red ball. It would look larger than the moon, and its light would be much brighter and stronger.

Now, you will remember that I told you in my last story that the moon is something like the planets, because it does

not shine by its own light. Well, now, the sun *does* shine by its own light, and, as I told you before, all the stars are suns, and shine by their own light, although they are so far away that they look so small. The sun is very far away, too, but not so far as they are. The sun is 92 millions of miles away, and yet we can feel the heat and see the light that comes from it.

Just try to think how immensely big and how fearfully hot the sun must be, that we can see the light and feel the heat at this immense distance from him. Clever men who have studied the sun very much, tell us that it would take about one million and a quarter of globes as large as our earth to make an immense mass as big as the sun, or, in other words,



PRIESTS WORSHIPPING THE RISING SUN IN ANCIENT TIMES.

the sun is about one million and a quarter times larger than the earth is.

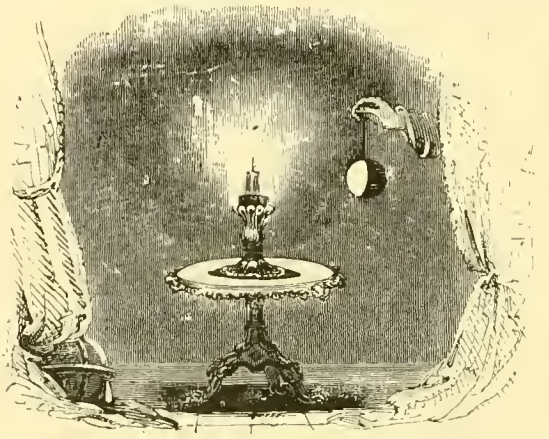
If the sun were to sink out of the heavens, we should have no light and no heat on this earth, because all our light and heat come from the sun. It would be like a very dark night, with only perhaps a faint glimmer of twilight from the other stars, and it would be so cold that all the plants and trees would die, and we should soon die too.

THE SUN DOES NOT GO ROUND THE EARTH; BUT THE EARTH GOES ROUND THE SUN.

Have you ever seen the sun rise on a clear summer morning? If not, you have a great treat in store. It is a very beautiful sight. First of all the sky in the east is flushed with a rosy glow, then long shafts of brilliantly coloured light

strike upwards to the sky over your head, and then with a rush the great globe of light appears: the sun has risen suddenly. The birds begin to sing, everywhere is the bright warm sunshine, and a new day is begun! The rising of the sun is so beautiful that in the ancient days, when people who did not know the true God used to worship the sun, priests used to meet at the top of a tall building and offer sacrifices to the sun, as his first beams illumined the sky.

But does the sun really rise in the east, and journey all across the sky, and sink in the west at night? No, it does not



PICTURE SHOWING HOW THE SUN GIVES LIGHT TO THE EARTH.

[The ball spinning round on the knitting-needle held in the hand is like the earth, and the candle is like the sun; only the earth takes twenty-four hours to turn round *its* knitting-needle, or axis, as we call it. To a fly on the ball it would seem as if the candle was going round, even as to us the sun seems to be going round us. But supposing that while the ball was spinning round its knitting-needle you slowly moved it round the candle, that would be like the earth too, for it goes round the sun *once a year*, and this gives us summer and winter.]

really do so, although it seems to do so. It is the earth that moves. The earth goes round and round like an orange spinning on a knitting-needle. Here is a picture that may help you to understand this. Let the candle be like the sun, and the ball spinning round on the knitting-needle be like the earth.

And here is another thing that may help you to understand this. When you have been in a railway train, and it has been going very fast, and you have looked out of the window, the trees and the houses and fields all seemed flying past, and you

seemed to be standing still, yet you knew that it was the train that was going quickly. Just so with the sun. It is the earth that is going quickly round, and the sun appears to pass over us just as the fields and trees seem to pass by when we are in the railway train.

But you say, I cannot see the earth go round. No; and if you sit in the carriage of the train, and look at the side of it, you cannot see the carriage moving, and when you spin your humming-top, and spin it so well that it goes to "sleep," it goes round so quickly that you cannot see it go round. Now the earth is going round so quickly that we cannot see it, and we are so *small* on its surface that we are only like very small flies on a very large wheel, and they cannot see the wheel go round, because they are so small. It is this whirling round of the earth that causes day and night, for it whirls round once in every twenty-four hours. It goes *round* the sun also as well as round its axis, or "knitting-needle," and this gives us summer and winter. And now you will, perhaps, like to know something of what the sun is like.

WHAT THE SUN IS LIKE.

So far as the clever men who study the sun and stars can tell us, the sun is not a solid body like our earth. It is an immense mass of white-hot vapour, or gas. By means of a very beautiful instrument called the "spec-tro-scope," astronomers have been able to discover that a number of metals (such as iron, &c.), which exist in our earth, also exist in the sun; but so intensely hot are they, that they are not hard and solid as with us, but in a state of glowing hot vapour or gas.

Sometimes when astronomers look through telescopes they see immense spots on the sun's shining surface. These are now supposed to be immense hollows in the sun's vapoury substance, and are called sun-spots. They see a dark patch in the centre, which they call the nucleus, or the *um-bra:* around this is a patch less dark, called the *pen-umbra:* and they also see long streaks of light, which they call the *faculæ*, or torches.

I shall have something more to tell you about the sun in another chapter.

KINDERGARTEN GAMES AND SONGS.

VII.—THE FARMER.

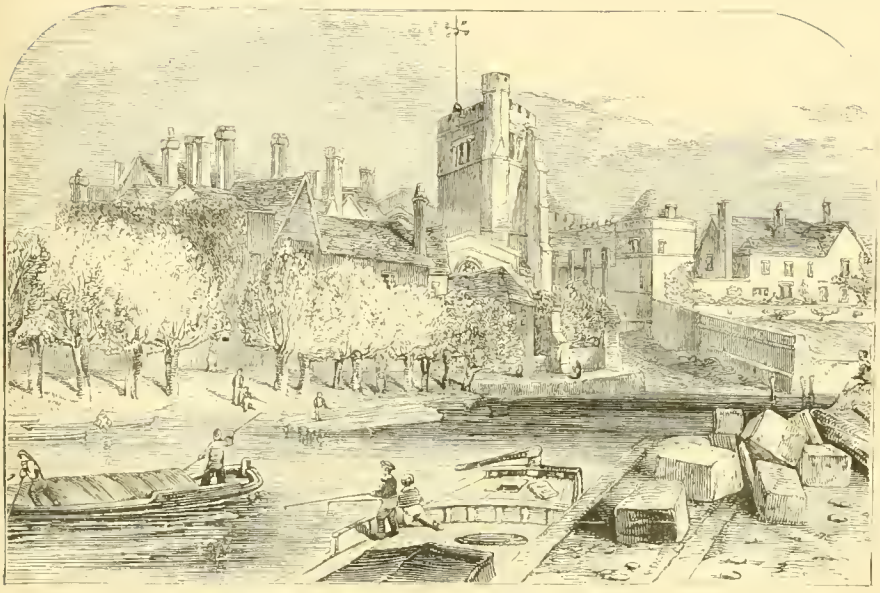
A CIRCLE is formed, and the song commences. At the words "Look, 'tis so," they imitate the different employments mentioned in the song: one employment to each verse. At the words describing the farmer taking rest, which are sung softly, the children fall on the left knee, and rest the right elbow on the right knee, leaning the head on the right hand as if fatigued. At the fifth verse, describing the farmer rejoicing over the harvest, they dance round the room, clapping hands.

1. Do you won - der how the farm - er, Do you won - der how the
farm - er, Do you won - der how the farm - er sows his bar - ley and
wheat? See, 'tis so, so, that the farm - er sows the bar - ley and
wheat. Look, 'tis so, this is the farm - er sow - ing bar - ley and wheat.

2 Do you wonder how the farmer thrashes barley and wheat?
Look, 'tis so,—this is the farmer thrashing barley and wheat.

3 Do you wonder how the farmer takes rest after his work?
Look, 'tis so,—this is the farmer taking rest after work.

4 Do you wonder what he does when the harvest is o'er?
Look, 'tis so,—so he rejoices when the harvest is o'er.



TWO BOYS FISH-ING, AND TWO MEN STEER-ING A BARGE.

FIRST STEPS;

OR,

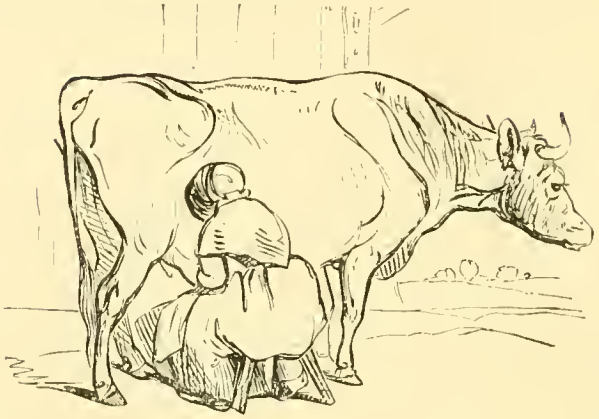
EASY LESSONS IN READING & SPELLING.

VII.—MORE LITTLE STORIES TO READ.

BEAUTY.

HARRY was now quite fond of reading, and he used to read a little every day. Here are some more of the tiny stories he read in this way. The first is about a cow called "Beauty:"—

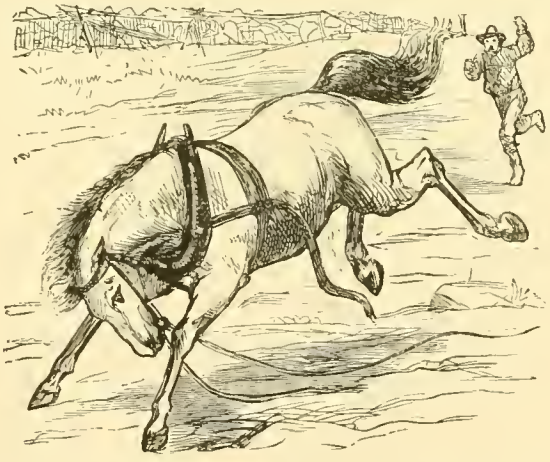
We cal-led our cow "Beau-ty," be-cause she was so ve-ry hand-some, and she used to give us a great deal of good milk. She was ve-ry tame, and would let us stroke her, and pat her neck, which was ve-ry fat and sleek. She was a ve-ry good cow.



This is a pic-ture of Jane milk-ing our cow "Beauty." When fresh, the milk is ve-ry sweet and warm. Have you ev-er tas-ted warm new milk? A great deal of milk is sent in large cans to Lon-don from the farms where the cows live.

"Beau-ty" was al-ways qui-et while she was milk-ed. She nev-er kick-ed as some cows do. But if a dog came ne-ar, then she be-came ve-ry an-gry. She rush-ed a-way from poor Jane, and put her head down, and tried to hurt the dog with her horns un-til it had gone quite a-way.

We had a horse, al-so, who was fond of run-ning a-way. He liked to gal-lop o-ver the fields with my fa-ther on his back. He could jump fen-ces in fine style, and run very fast o-ver the ground with the hounds, af-ter a fox. He was a good horse.



Some-times when he was plough-ing—that is, draw-ing a heav-y piece of iron through the ground to pre-pare it for sow-ing seed—he would sud-den-ly break his traces, and scam-per off. His name was "Fly-a-way." We liked him very much, and he used to eat ap-ples and su-gar and hay out of our hands.

PHEAS-ANTS.

The Pheas-ant is a ver-y pret-ty bird, and there are man-y kinds in dif-fer-ent parts of the world. In the pic-ture you see some of these va-ri-ous kinds. The one with the ve-ry long tail and the spots is called the Ar-gus Pheas-ant. It lives in the south of In-di-a, and in the is-land of Su-ma-tra. The Pheas-ants in Eng-land were brought from the East. Men like to shoot them in the woods.

PEA-COCKS.

The Pea-cock is a very beau-ti-ful bird. It has a crest of green and gold on its head; the fea-thers on its neck va-ry from deep blue to light green, and its tail is ve-ry long, and splen-did-ly col-our-ed. Some of the fea-thers are four feet long, and all are span-gled with eye-spots of rich pur-ple, with rings round them of green and black and chest-nut colour. But the voice of the Pea-cock is ve-ry harsh.

THE LIME TREE.

THE LIME TREE.

The *Lime* or *Lin-den Tree* is a very fine and hand-some tree. It has heart-shaped leaves, and in sum-mer time bears sweet-smell-ing flow-ers. The wood is much used for ma-king mu-si-cal in-stru-ments. Some-times these trees are planted in rows a-long the sides of streets, and one of the most fa-mous roads in Ber-lin is called *Un-ter der Lin-den*, or Un-der the Limes, be-cause it has a splen-did av-en-ue of these trees.

THE ELM TREE.

THE ELM TREE.

The *Elm Tree* is one of the lar-gest and no-blest of our trees, and of-ten grows nine-ty feet high, and the trunk near the ground is of-ten e-lev-en feet round. The wood is ve-ry tough, and will bear get-ting wet for al-most an-y length of time with-out rot-ting. It is used sometimes to make parts of wheels. This tree grows best in ve-ry moist and damp ground.

THE BLACK POPLAR.

THE BLACK POP-LAR.

This is one of our tal-lest trees, grow-ing some-times one hun-dred feet high. It grows best in damp ground, and its wood is some-times used to make the floors of houses. It is al-so cal-led the *Can-a-dian Pop-lar* because it grows ve-ry free-ly on the banks of the great lakes in Can-a-da. The wood is soft, and easy to cut, and chil-dren's toys are u-su-al-ly made from it.

THE BEECH TREE.

THE BEECH TREE.

The *Beech Tree* has a large mas-sive stem or trunk, and very beau-ti-ful shiny leaves. When they are wet-ted by a sum-mer shower, and the sun comes out after the rain is ov-er, they glis-ten in the most beau-ti-ful man-ner. It is one of the hand-som-est and most use-ful of trees. The branch-es spread out far and the leaves af-ford a good shel-ter. The wood is used for making fur-ni-ture.

YEW.

AL-DER.

BOX.

FRENCH WIL-LOW.

EL-DER.

MYRTLE.

SPEED-WELL.

OX-EYE DAISY.

LADIES' MANTLE.

BUCK-THORN.

GOOSE-BER-RY.

BAY.

LARCH.

LIME.

BIRCH.

ROSE.

PEAR TREE.

GARDEN PEA.

OAK.

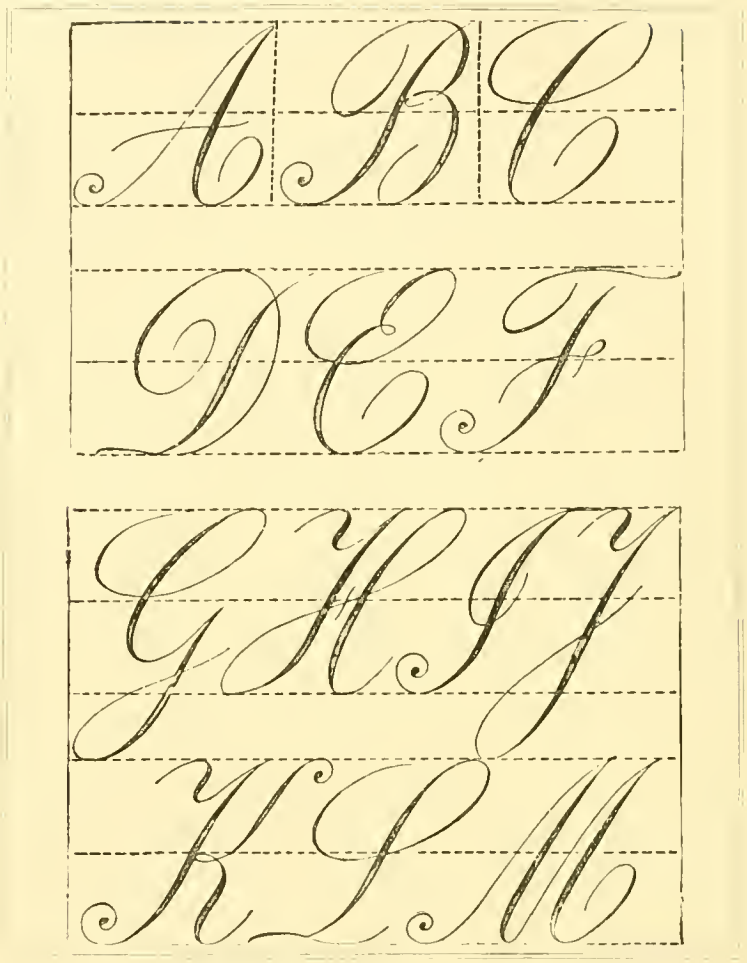
MAPLE.

ELM.

WHITE WIL-LOW.

HOL-LY.

SWEET CHEST-NUT.



THE FIRST THIRTEEN CAPITAL LETTERS.

WRITING MADE EASY.

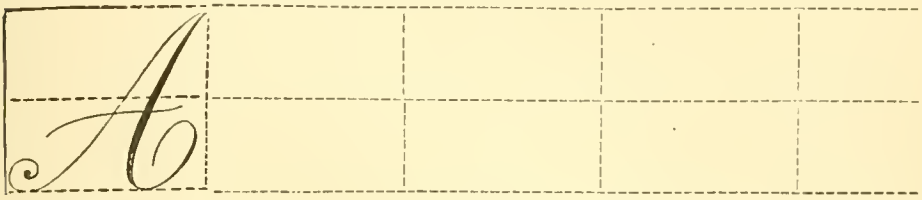
VII.—CAPITAL LETTERS.

TRYING TO WRITE.

THE next exercise given to Amy was the practice of the first thirteen capital letters in large hand.

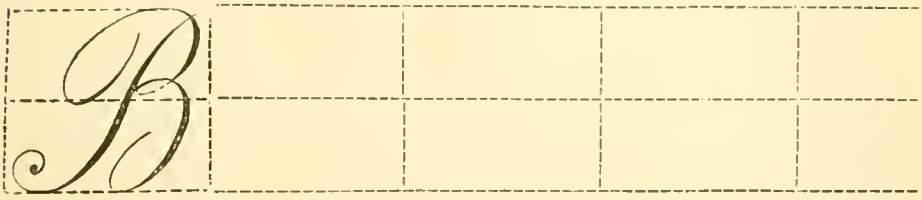
You will see these in the picture at the top of this page. First of all, squares were made as you see them in the top lines, and then a line drawn through the

centre to show where the middle of the letters should come, and where the loops of the B and K, &c., were to be made, so that the copy looked like this—

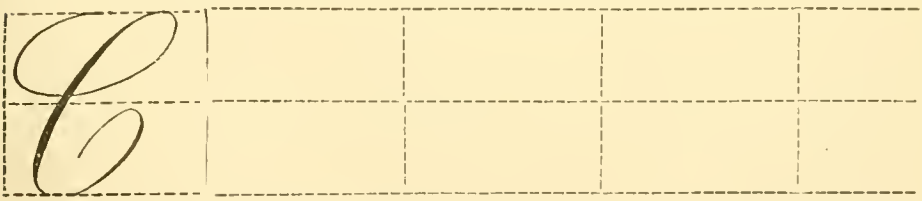


All the letters were treated in this way, and Amy was told to form each one separately several times over, until practice should make perfect.

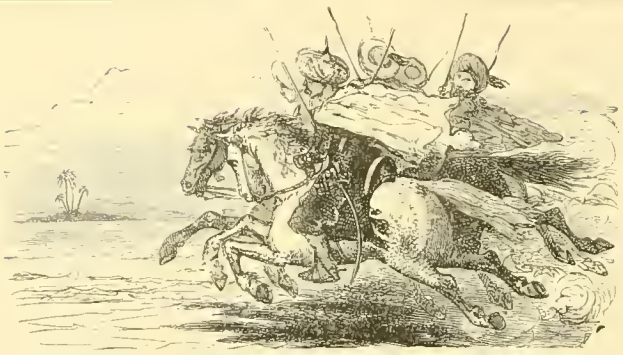
Great care was necessary at first in forming



these letters, as they were larger than any the little girl had yet attempted, and to tell you the truth, she found them more difficult than she expected, and made several failures. But she



continued to practise them in spite of her mistakes. The plan of doing a little at a time, so that she was never tired, helped her wonderfully, so that soon she was able to do without the squares and the middle line altogether.

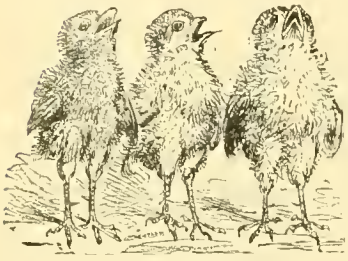


FIVE ARABS ON FIVE HORSES RIDING OVER THE SANDY DESERT.

[As each horse has four legs, and there are five horses, how many legs altogether? —Five times four are *twenty*. Suppose you put down five little sets of four cubes on the table and count them up.]

PICTORIAL ARITHMETIC.

MORE ABOUT MULTIPLICATION.



THREE LITTLE BIRDS, EACH WITH TWO FEET, HOW MANY FEET IN ALL?—*SIX*.

I HOPE you have now learned the "twice" table, of which I told you in the last chapter. If so, you can now do a little Multiplication sum. And when we have done that together, you must go on to learn the Three Times and the Four Times Tables.

Here is a little sum for you—

7 4 3 1
2

Begin at the right hand, and say, Twice one are two, and put down the 2 as it is here.

7 4 3 1
2
2

The next figure is 3, so we say, Twice three are six, and the 6 is put down thus—

7 4 3 1
2
6 2

The next figure is 4. Twice four are eight, so put down the 8. The last is 7. Twice seven are fourteen, and the

7 4 3 1
2
1 4 8 6 2

sum is done. So if 7431 be multiplied by 2, the answer is 14862.

The next table for you to learn is—

THE THREE TIMES TABLE.

Three times 1 *are* 3 ○ ○ ○ 3

„ „ 2 „ 6 ○○ ○○ ○○ 6

„ „ 3 „ 9 ○○○ ○○○ ○○○ 9

„ „ 4 „ 12 ○○○○ ○○○○ ○○○○ 12

„ „ 5 „ 15 ○○○○○ ○○○○○ ○○○○○ 15

„ „ 6 „ 18 ○○○○○○ ○○○○○○ ○○○○○○ 18

„ „ 7 „ 21 ○○○○○○○ ○○○○○○○ ○○○○○○○ 21

„ „ 8 „ 24 ○○○○○○○○ ○○○○○○○○ ○○○○○○○○ 24

„ „ 9 „ 27 ○○○○○○○○○ ○○○○○○○○○ ○○○○○○○○○ 27

„ „ 10 „ 30 ○○○○○○○○○○ ○○○○○○○○○○ ○○○○○○○○○○ 30

„ „ 11 „ 33 ○○○○○○○○○○○ ○○○○○○○○○○○ ○○○○○○○○○○○ 33

„ „ 12 „ 36 ○○○○○○○○○○○○ ○○○○○○○○○○○○ ○○○○○○○○○○○○ 36

The next table is the "Four Times;" here it is. Say it over many times, and learn it thoroughly.

THE FOUR TIMES TABLE.

Four times 1 *are* 4

,, ,, 2 ,, 8

,, ,, 3 ,,12

,, ,, 4 ,,16

,, ,, 5 ,,20

,, ,, 6 ,,24

,, ,, 7 ,,28

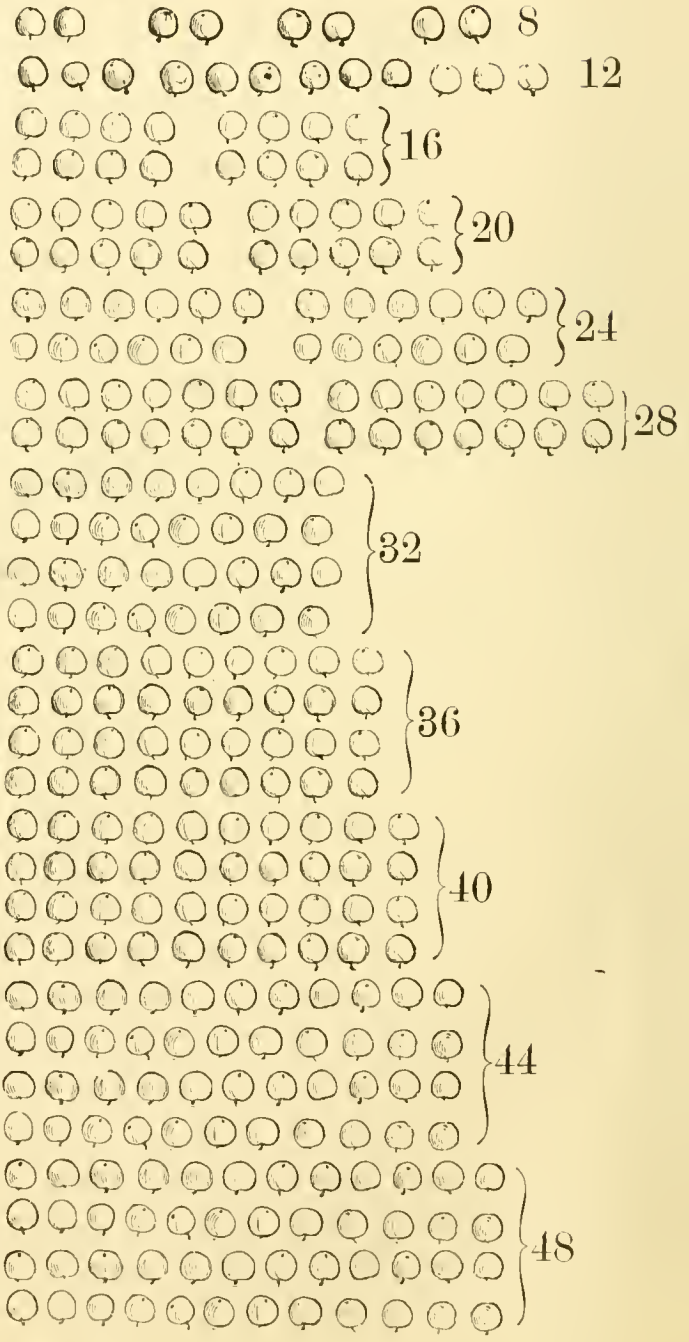
,, ,, 8 ,,32

,, ,, 9 ,,36

,, ,,10 ,,40

,, ,,11 ,,44

,, ,,12 ,,48



KING EDWARD AND QUEEN PHILIPPA ENTERING CALAIS.

THE HISTORY OF ENGLAND IN EASY LESSONS.

EDWARD I., CALLED LONGSHANKS.

KING EDWARD I. SHOWING HIS INFANT SON TO THE WELSH CHIEFS.

YOU remember that in the last chapter I told you that Prince Edward, the son of Henry III., was very brave, and that he got away from his guards and collected an army, and won a battle and set his father free. Well, when his father died, Prince Edward became king instead, and as he was the first man named Edward who had ever been king, he was called Edward I., and as he was a very tall man, the people also used to call him "Longshanks."

Edward I. was a good king, and a very brave man also. This is what we might expect, when we learned that he was a good son and a brave boy.

He ruled England well, and kept up De Montfort's plans about Parliament and taxes, as I told you last time. He also caused the laws to be obeyed, so that wicked people should not go unpunished and that good people might live quietly. When he was a young man he had been about a great deal in other

countries, and had seen what the people did there; so, when he came to be king, he was able to tell the English how to look after cows and horses better, and how to have better corn and vegetables in their fields and gardens. The English people were very glad of this, because it caused them to be better off and to have better food to eat, and they were pleased to have such a good king.

THE WAR WITH THE WELSH.

But though Edward was a good king in many things, yet he made two very cruel wars. One was against the Welsh, and the other was against the Scotch. The west part of the island on which we live was, and is still called Wales, and the people who live there are called Welsh. Edward wanted to be king of the whole of the island, and so he fought many battles against these people. They then had a brave king called Llewellyn, who tried very hard to defend his country against the English, but he was killed at last, and Edward conquered the whole of Wales.

Then, I am sorry to tell you, he did a very cruel thing. He caused all the *bards*, or poets, of Wales to be slain, because they used to make verses and sing them to the music of their harps to urge on the people to rebel against Edward.

Soon after this Eleanor, Edward's wife, went to stay at Carnarvon, in Wales, for a little time, and her son Edward, afterwards Edward II., was born there; so the King took his little son, called also Edward of Carnarvon, and showed him to the Welsh chiefs and said, "Here is a new prince for you; he shall be called Prince of Wales." So, ever after that, the eldest son of the Sovereign of England has been called Prince of Wales.

THE WAR WITH SCOTLAND.

But Edward was not satisfied with conquering Wales. He wanted Scotland also. So presently he went to war with the king of that country also, and took the best part of it. He was very cruel to the Scotch people.

At last a noble knight, named Sir William Wallace, got together a number of soldiers, and they began to drive the English out of Scotland. But Sir William Wallace was taken

prisoner and carried off to London, where King Edward ordered his head to be cut off. This was as cruel as his killing the Welsh poets.

This was not the end of the Scottish war, for after Wallace was killed another hero appeared, Robert Bruce, and he was more successful even than Wallace. King Edward, who was now an old man, went towards Scotland with a large army to try and defeat Robert, but when he got near Scotland he died.

EDWARD THE BLACK PRINCE.

If he had been content to govern his own people well, he would have been a happier man, but he wanted to be better off than anybody else and to be above everybody else, and this led him to commit those bad actions of which I have told you.

EDWARD II., CALLED EDWARD OF CARNARVON.

The little boy whom I told you was made Prince of Wales, became king at his father's death. But he was no longer a

boy when his father died; he was a young man of twenty-three, so that he was quite old enough to be wiser than he was. He was, in fact, a very foolish king, and wasted all his money with wicked companions and quarrelled with his nobles.

He was very fond of a bad man named Gaveston, whom his father had sent away, but who returned at his father's death, and when Gaveston was killed he wasted all his money with a bad man named Spenser.

He gave up his time to hunting and drinking, and left the government of the country to these bad men.

He tried to go on with the war with Scotland, but Robert Bruce met the English at Bannockburn and completely beat them. This was in 1314. And in the same year and the next year there was a great famine in the land; the people had very little to eat, and they grew very discontented at being so badly governed. But as Edward grew older he did not become wiser, and his wife also was a very wicked woman, and when there was a civil war and the people rose against the King, she took part against him.

At last the unhappy man was taken prisoner and shut up in Berkeley Castle. Here he was murdered in a very cruel manner, so that his shrieks and cries were heard all over the castle.

EDWARD III., CALLED ALSO EDWARD OF WINDSOR.

At the time of the death of Edward II. his son Edward III. was hardly fifteen years old. His mother and a wicked friend of hers named Mortimer ruled the country, for *him*, as they said, but they did just as they pleased. At last the boy saw that they were behaving very badly, and that he had better rule the kingdom for himself. So he seized Mortimer, and caused him to be hanged as a traitor, and he caused the Queen at first to be imprisoned, and then to be kept in a large mansion at Risings, where she was prevented from doing harm.

And then he ruled the country himself, and proved to be as wise and good a king as his grandfather Edward the First.

He married a good and beautiful woman named Philippa, who was much loved by the English people. She had many children, whom she brought up wisely and well. The eldest

of these was named Edward the Black Prince, because he always wore black armour.

But if Edward III. was wise and good like his grandfather, like him, also, he was fond of war. He thought he ought to be King of France, because the previous king was his uncle, who had no children. But the French people chose another

THE BATTLE OF CRECY.

prince named Philip of Valois, who was also related to their late monarch; and so Edward went to war.

The first battle was fought on the sea, near a town on the Flemish coast called Sluys. This was the first great sea-battle since the times of the Danes, so you must be sure to remember it. It took place in the year 1340, and was won by the English.

Not very long after this the English won two great victories,

which are among the greatest and most glorious that have ever been gained by the English. The first of these was the battle of Crecy and the second was the battle of Poictiers. In both of these battles the Black Prince was very brave.

The siege of the town of Calais was also a great event of this war. The French defended themselves with much courage, but they were at last obliged to give way: Edward was going to kill some of the French people, but at the request of his good Queen Philippa, he did not do so, and was kind and merciful to them. At last the long war ended by Edward having some part of France and Philip having part.

But the good Queen died soon after the end of the war; and then her son, the Black Prince, whom everyone loved because he was brave and good, died also one year before his father Edward III. So when this great king died, the heir to the throne (the son of the Black Prince) was only a little boy, and the people of England were very grieved because of the deaths of their good Queen, their brave Prince, and their wise King so soon after each other.

There were two very great men who lived during the reign of Edward III; you must remember their names, and what they did. One was Chaucer, the first great English poet. He has been called "the father of English poetry." And the other was John Wycliffe, the first great English Reformer, who translated the Bible into English, and wrote several books, so that he might almost be called "the father of English prose."

QUESTIONS.

Who was Edward I.?
Was he a good king?
But was he sometimes very cruel?
Give me two instances of this.
Who was Sir William Wallace and Robert Bruce?
When did Edward die?
Who was king after him?
Was he a bad king?
Had he a good wife?
Where was he killed?
Who was king after Edward II.?
Did he rule well?
Who did he marry?
Was she a good queen?
What was the name of his eldest son?
Did Edward III. like war?
Why did he fight against the French?
What great victories were gained?
What great siege took place?
Why did Edward spare the people of Calais?
How did the French war end?
What then grieved the English people very much?
Tell me the names of two great men who lived in Edward III.'s reign.
What did they do?

PICTURE OF A VERY BEAUTIFUL IRISH LOUGH—GOUGANE BARRA LAKE.

[This picture will give you a good idea of what many Irish lakes are like. They are surrounded by high, stone mountains, and are very deep. In this lake the river Lee has its source—the river which has been celebrated in the beautiful poem, "The Bells of Shandon," which you should read and learn by and by, when you are older.]

GEOGRAPHY.

MORE ABOUT IRELAND: ITS LAKES, BAYS, AND CAPES.

VIEW ON LAKES OF KILLARNEY.

LAST time we left off as I was telling you about the lakes or loughs of Ireland, and I had just told you the names of the three in the great river Shannon. It is very pleasant to row on these loughs, from one to another, passing the towns of Leitrim, and Carrick, and Athlone, and then down to Limerick (where the siege was), and out between Clare and Kerry into the great Atlantic Ocean, where the ships steam away to America.

The Loughs of Killarney, called in the English manner the Lakes of Killarney, are very lovely. There are three of them altogether, the Upper Lake, the Middle Lake, and the Lower Lake, and the tourists who go to see them find them all so lovely that they do not like to turn their eyes away. There are some mountains overlooking these loughs, or lakes, with a

very curious name; they are called McGillycuddy's Reeks. Then there is Lough Corrib, near Galway, and Lough Mask; and lower down, near Cork, is Gougane Barra Lake. They are grand and solemn lakes, lying amidst grey stone mountains, very wild, but very beautiful nevertheless. Lough Swilly and Lough Foyle are really parts of the sea, only they have very narrow entrances, so that when a ship is once in, it is just like being on a lake surrounded by land, for it is almost impossible to see how to get out again.

THE IRISH BAYS.

There are plenty of bays, also, as the map will show you. The names of some are, Donegal Bay, Sligo Bay, Killala Bay, Galway Bay, Dingle Bay, Kenmare Bay, Bantry Bay.

Then, coming round the south coast, there are Cork Harbour, Dungarvan Harbour, Waterford Harbour, Wexford Bay, Dublin Bay, Dundalk Bay, Carlingford Bay, and Belfast Lough.

THE CAPES ON THE IRISH COAST; THE GIANT'S CAUSEWAY.

Now I must tell you about some of the capes of Ireland. Do you see Fair Head, right up at the north? That is only thirteen miles away from Scotland. If the thirteen miles were land, and not water, a man could walk from Ireland to Scotland easily in three hours. Rathlin Island is close by, a little island where Robert Bruce took refuge once. Another very interesting place close by is the Giant's Causeway. It is the rocky edge of the land all formed into pillars, naturally, not by hand; these pillars being low at some places, like a road or *causeway*, beautifully pieced out, and rising high at other places, as close together as the pipes of a church organ.

Can you see Malin Head, and all the other heads on that coast facing the Atlantic? They are all very rocky and very dangerous. Downpatrick Head is one of the tips of Connaught, at the widest part of Donegal Bay.

Then come Achil Head, Loop Head, Kerry Head on the west; Cape Clear and Greenore Head on the south; and Wicklow Head and Howth Head on the east.

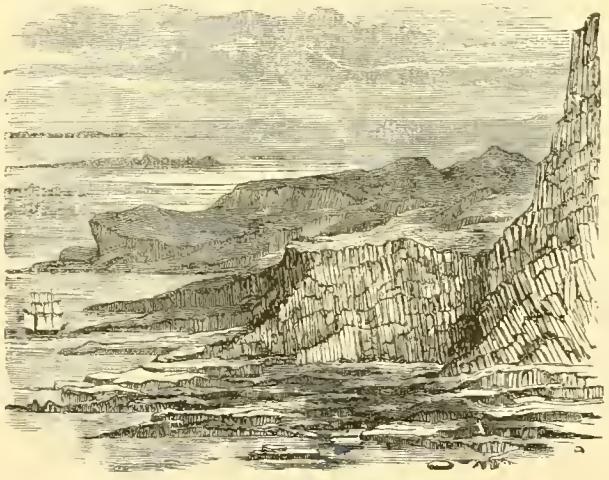
Some coal is found in Ireland, though not the best coal. Some iron is found there, also, at Ballycastle in Antrim, and at Kilkenny. There are copper mines in Tipperary, Cork, and Wicklow; and some of the ships that leave Cork and

Waterford are loaded with this copper. In Wicklow, also, there is some lead; and there is sometimes just a little silver, and just a very little gold, but so little it is scarcely worth while to try to get the metal.

What Ireland makes most is linen. This is made in Belfast, Newry, Coleraine, and Dublin, and it is the very best linen in the world.

It is made from the flax plant, which grows largely in Ireland. This plant has a bright little blue flower, which makes all the Irish country round about the linen districts look very pretty when the plants are in bloom. Belfast is a very large seaport for sending away this linen.

But there are not many people in Ireland. There are only five and a half millions, about as many as there are in the three English cities, London, Liverpool, and Manchester.



GIANT'S CAUSEWAY.

Where is Ireland?
Is it quite surrounded by water?
What is the name of the water between England and Ireland?
What water is on the south, west, and north sides of Ireland?
Why is Ireland called the Emerald Isle?
Tell me the names of the four Irish provinces?
How many counties are there in Ireland?
Tell me the names of the chief Irish rivers, and point them out on the map?
On what river is Dublin?
Tell me the names of the chief loughs, or lakes, and point them out on the map.
Tell me some of the chief towns, and point them out.
Tell me the names of the chief bays, and point them out.
What is the chief manufacture of Ireland?
Where is a great sea-port for sending away this linen?

SOMETHING ABOUT THE GEOGRAPHY OF NORTH AMERICA.

If, after leaving Ireland, you were to sail away across the Atlantic Ocean, for a very, very long way, you would come at last to a very great piece of land called America.

You will see this better if you look at the map, and you will see that there are two great pieces of land joined by a narrow neck, called the Isthmus of Panama. The large part at the top is called North America, and the lower part is called South

America. I am now going to tell you something about North America.

A great piece of North America belongs to England, and is called British America; part of this, again, is called Canada. But another and a greater piece of America still is called the United States.

The people there speak English, and write English letters, and read English books. Many of them used to live in England, or are the children of people who used to live in England, and that is why we tell you about the geography of this country, after the geography of our own.

THE MOUNTAINS OF AMERICA.

Now, the first thing I must tell you is this, that nearly everything in America is bigger than in England. The mountains are bigger, the lakes are bigger, the waterfalls are bigger; but there is no city so big as London, for, as I have told you, that is the biggest in the world. Look at the long streak, or ridge, of mountains running right along the western edge of America. They are called the Rocky Mountains. They reach over thousands of miles, and some of them are very high: the highest is called Holy Cross; it is 17,000 feet high.

There is another set of mountains, too, the Alleghanies, on the eastern side. Of these, Mount Washington and Mount Guyot are the highest.

THE CAPES, ISLANDS, AND BAYS OF NORTH AMERICA.

You can see that with such a long coast line there are a great many capes in North America. But I have only room to tell you a few of the principal ones. The most northern is Point Barrow; then, coming on the eastern side, there are Capes Bathurst, Farewell, Chudleigh, Charles, Breton, Race, Sable, Cod, Hatteras, Tancha (or Sable), and Catoche; on the western side there are Capes Corrientes, St. Lucas, Mendocino, and Prince of Wales, which is the most western point.

You will also see that there are several islands round the coast. The principal are the West India Islands, near the Gulf of Mexico; then going northward there are Newfoundland, Prince Edward's Island, and Breton Island; while on the other side there are Vancouver's Island and Queen Charlotte's Island.

SOMETHING ABOUT THE AMERICAN RIVERS.

Between these two great ranges of mountains of which I have told you, is a large piece of country through which runs a very large and beautiful river called the Mississippi. It is 3,160 miles long, and is the largest river but one in the world. Another very large river, called the Missouri, runs into the Mississippi. The Missouri is 3,100 miles long. It also has many tributaries or rivers falling into it, the chief of which are the Cheyenne, Kansas, Osage, Platte, and Yellowstone. There are also a number of rivers falling into the Mississippi besides

VIEW ON THE RIVER MISSISSIPPI.

[This is a picture of the Mississippi River, with a big steamboat sailing down to New Orleans, which is a large town near the place where the river flows into the sea. The river winds about a great deal on its way to the sea, and in width it varies greatly, from 300 to 900 yards in the upper part to between 2,000 to 2,500 yards lower down. In wet weather it often rises to a great height, and carries away trees and timber on its banks, as we see in the picture. There are also several islands in the river.]

the Missouri, as many as 1,500, upon all of which steamboats can go along. The chief of these are the Red River, the Arkansaw, the Wabash, the Ohio, and the Illinois.

There are several other very large rivers in America, but I have only room just to mention them. There are the Mackenzie, the St. Lawrence, the St. John, the Hudson, the Delaware, the Susquehanna, and the Rio del Norte.

BANYAN TREE.

[This is a most extra-ordinary tree which grows in India. The people there look upon it as a sacred thing. Its branches spread out a long way and send down shoots to the ground, where they take root and draw in nourishment for the whole tree. A single Banyan tree has been known to cover the immense distance of 1700 yards with its shade.]

STORIES OF THE PLANTS AND FLOWERS,

OR,

BOTANY FOR VERY YOUNG BEGINNERS.

STORY V.—EXTRAORDINARY PLANTS.

FROND OF FERN SHOWING THE SPORES.

HITHERTO we have been speaking about plants with flowers, but there are some plants which have no flowers. The common fern or bracken is one of these, and we may therefore call it an extra-ordinary plant, because it has no flower, as most plants have.

Do you know what extraordinary means? I will tell you.

A thing is ordinary when it differs in no remarkable way from other things of a similar kind; we call it *extra*ordinary when it does so differ. Thus, as the great number of plants have flowers,

a plant that has no flower at any time of the year might be considered as an extraordinary one.

Indeed, if it came to a matter of wonderfulness of structure, the commonest herb that ever grew is extraordinary; for are there not all sorts of mysteries about its life which are completely hidden from us? We know the plant gets carbon from carbonic acid, but we do not know precisely how it does this; it gets nourishment from the ground also, but who can tell how that nourishment is turned into wood? Considered in this way, then, the commonest herb is an extraordinary thing: but if we take only into account that it does not grow above a certain height; seldom lives above a certain age; and is much as other plants are, then the plant is only an ordinary one.

A LITTLE TALK ABOUT FERNS.

Now we will go on again to talk about the fern. Many a time, we dare say, you have walked knee-deep through fern or bracken as you have been going through the woods; or perhaps you have admired their graceful forms on the water-side as you have plucked up one of the large leaves to play with, which has looked nearly like a large ostrich feather in form. This leaf is not like other leaves, so that the botanist calls it a *frond* to distinguish it from others. One of the remarkable things in which a frond differs from a leaf is in its bearing at the back of it the little bodies which answer to seeds in other plants. These little round bodies, often contained in horse-shoe shaped cases at the back of the frond, are called *spores*.

One of these spores is unlike an ordinary seed, for when it is planted it does not give rise to a fern, but to a very little green plant which bears seed, and these give rise to ferns. This is really a very extraordinary thing, because you know that if you set a bean in the ground, a bean plant grows from it; and if you set any other seed, it in due season grows up a plant of its kind; but here, in the case of this fern, the spores it bears in the horse-shoe shaped cases at the back of the frond do not give rise to ferns when they are suitably planted. No; they give rise to a little plant which is, as it were, the parent of the next stock of ferns.

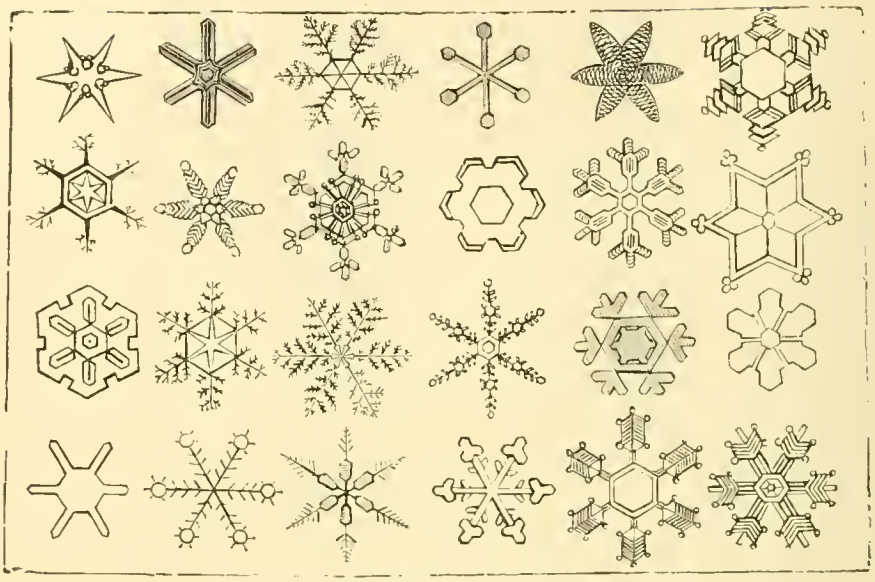
SOMETHING ABOUT A VERY TALL TREE.

To see and hear, however, of very extraordinary plants, one has to go to other lands and other climes. In the matter of size, for example, there is a tree in California called the *Wellingtonia gigantea*, which grows as high as a cathedral steeple, for it reaches a height of from 300 to 400 feet, and has a thickness in proportion to its length. Men look like ants compared with it as they move about attending to their various camp duties.

Other countries have their large-sized plants. When Dr. Arnold was in Sumatra he found an extraordinary flower. The expanded flower measured nine feet all round; the hollow in the middle of it would hold about nine pints of liquid, and its pistils were as large as cow's horns. Then there is a water plant called the *Victoria regia*, or the great water lily of South America, whose expanded leaves look like circular rafts, and would support your weight in the water if you stood on one of them. You may see the *Victoria regia* when you go to the Kew Gardens, near London.

LEAF OF DIONÆA.

What would you say to a plant that would eat flies? It certainly seems an odd thing to have to say, after what has been told you about plants receiving their nourishment from the air and from the ground. It is, however, certain that a plant called Dionæa destroys flies which alight on its leaves in such a way that one is quite right in declaring that it eats them, although it has no mouth with teeth, nor any stomach such as animals have. It has long been known as Venus's Fly-trap. One of the leaves of the Dionæa consists of a flattened footstalk, at the end of which are two fleshy lobes furnished with bristles round their edges. What does the Dionæa do when an insect walks over one of those lobes? Why, it cruelly and suddenly shuts up, folding the fly in its remorseless embrace. Anything in the insect which is nourishing now enters the plant, and such parts of it as are of no use to the Dionæa are left behind, and there they remain on the leaf for some time, when it opens again, and ought to be a warning to other little insects.

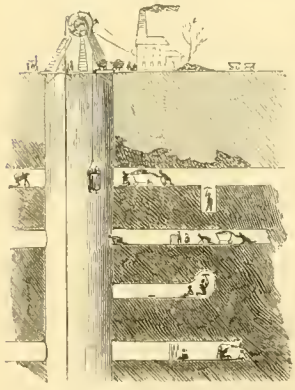


SNOW CRYSTALS SEEN THROUGH A MICROSCOPE.

[Chemistry tells us that snow is water in a solid, or nearly solid, form. Chemistry also tells us that everything we see about us appears in three forms. Thus we have water in three forms—*liquid*, like the water we drink; *solid*, as in ice and snow, for both ice and snow are only water made solid by cold; and *gaseous*, as in steam, which puffs out of a kettle, for steam is only water made like gas by heat.]

CHEMISTRY FOR CHILDREN.

CHAPTER II.—THINGS ON, IN, AND AROUND THE EARTH.



PICTURE OF A MINE.

Showing men digging out coal to burn in our fire-places. Iron, copper, gold, and a number of other things, are dug out of the earth in the same way, and Chemistry tells us about them.

ONE has no need to make a voyage round the earth to find that there is on it, and in it, every imaginable sort of substance. In the very building you live in there may be brick, stone, granite, marble and iron, and for making the mortar they used sand, water, and lime. Inside the house you have soap and soda for washing; bread, butter, cheese, beef, mustard, salt, vegetables, &c., for eating; tea, beer, and other things for drinking; and perhaps your father has pipes of clay, wood, and meerschaum for smoking. The ornaments in the house are of all kinds of materials—pot, glass, brass, gold, copper, silver, tin, bronze, and wood.

Going deep down into the earth, one may find there nearly every kind of mineral; and men are employed digging into the earth to bring up these things for the use of mankind on the top. Then all around the earth, fitting it closely like a garment, there is the air, a most wonderful mixture of two substances which chemists have called oxygen and nitrogen. It is very likely, also, that many of these things which are taken out of the inside of the earth, and are found on its surface and around it, would be also found in the sun and stars. Indeed, we know for certain of a great many things that are in the sun and stars, which are very common also on the earth. For example, there is iron in the sun, and the metal sodium, which is in common salt, is quite common in the sun and stars as well as on the earth.

DIFFERENCE BETWEEN SIMPLE SUBSTANCES AND COMPOUNDS.

Now the scientific man is always wanting to learn something new about the things around him, and he takes them and tries them, sees how they will stand fire, and a great many other things. In this way he has found out, by trying plant, animal, and mineral substances, yea, and even stones dropped on the earth from the heavens, called meteorites, that all things are either of a *simple* or else of a *compound* nature, or they are mixtures of other things. Brimstone, iron, and lead are simple substances, because however we try them we can get nothing else out of brimstone but brimstone, nothing out of iron but iron, and nothing out of lead but lead. Each consists of but one thing. Such simple substances are called *elements*. Now if we were to try rust, common salt, and water, and try them in the ways that scientific men have found out, we should then learn that rust is made of iron and oxygen; that common salt is made of the metal sodium and a substance called chlorine; and that water is formed from oxygen and hydrogen. These then, rust, common salt, and water, are not simple substances, because each one is made of more than one thing and is of a compound nature. The name of *Compound* is, therefore, given to such things as rust, salt, and water.

Everything we have mentioned in this short Lesson is either an element or a compound, and we may put them in groups as in the following table :—

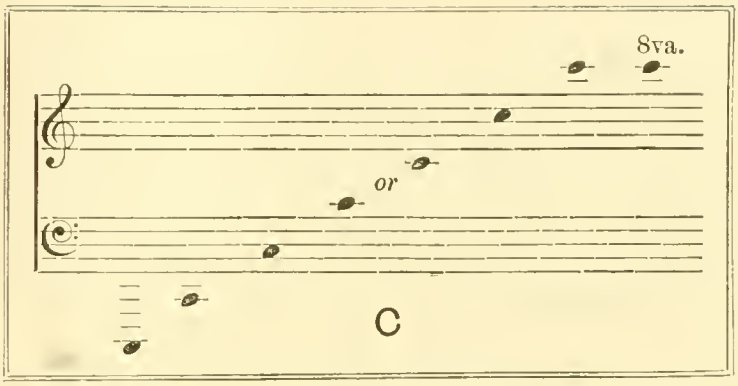
ELEMENTS.	COMPOUNDS.
Iron, *brass*, gold, copper, silver, tin, *bronze*, oxygen, nitrogen, sodium, brimstone, lead, chlorine, and hydrogen.	Brick, stone, *granite*, marble, sand, water, lime, soap, soda, bread, butter, cheese, beef, mustard, salt, vegetables, tea, beer, clay, wood, meerschaum, pot, glass, and rust.

Now you will see that in this table brass and bronze are put in italic letters, and also granite, because they are mixtures. Brass and bronze are mixtures of elements; granite is a mixture of compounds.

DIFFERENCE BETWEEN MIXTURES AND COMPOUNDS.

In a mixture the parts may be separated out, in a compound this is not possible without destroying the substance. Thus, if you take some brimstone or sulphur and pound it into a powder, you can now mix it with iron filings. This mixture, however, is not a compound—far from it; for upon taking a magnifying glass each little bit of iron may be told from the bits of yellow sulphur with which it is surrounded. And to separate the iron from the sulphur, it is only necessary to bring one of those little horse-shoe magnets you have often played with, and run it through the powder. All the iron filings stick to the magnet, and are thus separated from the sulphur. Now, if we had had a *compound* of iron and sulphur, neither the iron nor the sulphur in it could have been made out by the magnifying glass, and as for separating them by means of the magnet, it would not have been possible.

The things on, in, and around the earth are, therefore, made up of elements (or simple substances) and compounds, and mixtures of them. These things may be either liquid, solid, or gaseous. The air, for example, is a mixture of gases; wood is a solid, and water is a liquid. The word "gas" is the name given in conversation to the material we burn for light, but in science it is applied to all things like air. Water may exist in all three forms. In steam it is a gas, as also in the invisible vapour ever rising up from river, lake, and sea, to form clouds and then rain; in water, as we usually employ the word, it is liquid, and forms our rivers, lakes, seas, and oceans; in ice, and the tiny snowflakes which are things of beauty under the microscope, it is solid.



PICTURE SHOWING THE "C" NOTES UPON THE PIANO, BOTH ABOVE AND BELOW THE STAVE.

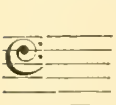
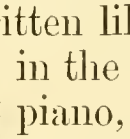
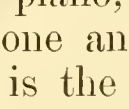
[We would advise the little pupil to write these notes out on a slate in their proper order, beginning with the lowest in the bass and rising to the highest in the treble, as in this picture; only of course this book must be shut up, and the notes written without help; then they should be found out on the piano.]

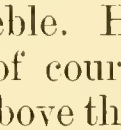
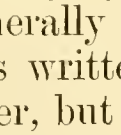
MUSIC AND SINGING.

WHAT IS AN OCTAVE?

HOW TO COUNT THE LOWEST NOTE BELOW THE STAVE.

EIGHT notes, or eight birds, make an octave. From D to the next D is an octave, or from A to A, E to E; in fact, from any one bird to the next bird of the same name either above or below it is an octave. Supposing your piano consisted of seven octaves, and the very lowest note was C, this is how it would be written If you count all the spaces and lines below the stave, you will find it is exactly eleven notes below the first bass line, G. You will see how to count it by the little picture at the beginning of this chapter. There are just five lines and six spaces below the line; this makes it eleven birds lower upon the piano than the first bass line,

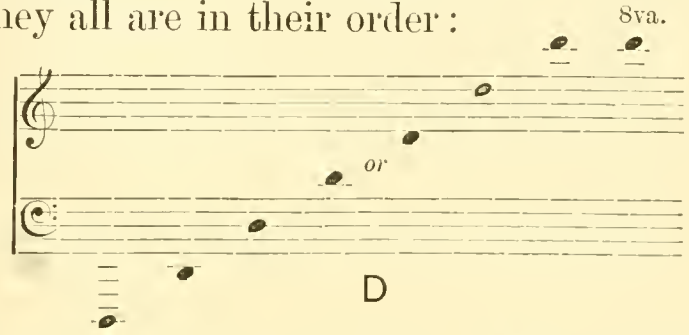
G, does it not? Find this C for yourself. The next C, or the next octave higher, is written thus:  This is just two lines and two spaces below the bass stave, and, of course, four birds lower than the first bass line. An octave higher than this brings us to the second space in the bass. Here it is. You have not forgotten where to find this upon the piano, I am sure. An octave higher than this last C brings us to just below the treble stave, or just above the bass. It may be written like this  in the bass, or like this  in the treble. If you find it upon the piano, you will see at once that both notes are one and the same. This you no doubt remember is the C upon which you begin to play with your right hand when executing the scale of C.

The next octave upon the piano brings us right into the treble. Here it is  You know where to find it, of course. An octave still higher brings us above the treble stave, and is written thus: It is just two lines and two spaces above the fifth treble line, F; you cannot fail to find it easily upon the piano. An octave higher still is generally written like this  The note you see is written in the same way as the octave lower, but the 8va written above the note signifies that it should be played eight birds or an octave higher.

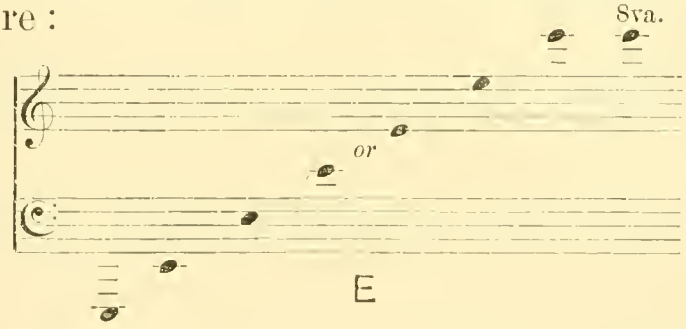
NOTES ABOVE AND BELOW THE STAVE.

In my last chapter I showed you how to find all the different C's upon the piano, whether in the

bass or in the treble. Having taken the C's, we will now take the D's, beginning at the very lowest. Here they all are in their order:



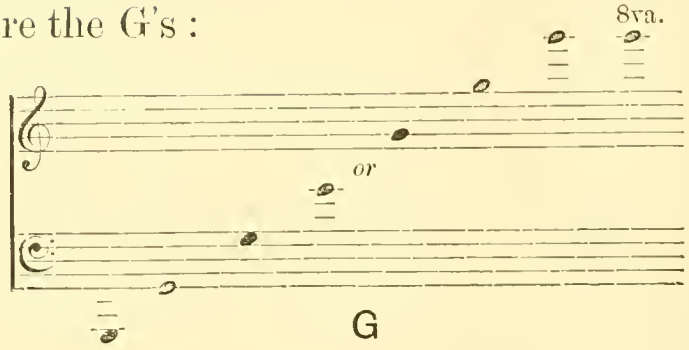
Play each one upon the piano. Now for the E's. Begin at the very lowest in the bass, and here they are:



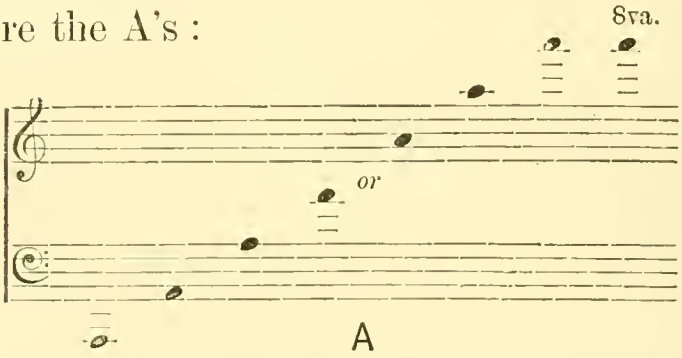
Now for the F's. Begin at the very lowest and play to the highest.

I give you these because I want you to become gradually acquainted with the notes above and below the stave, and to know where they lie upon the piano.

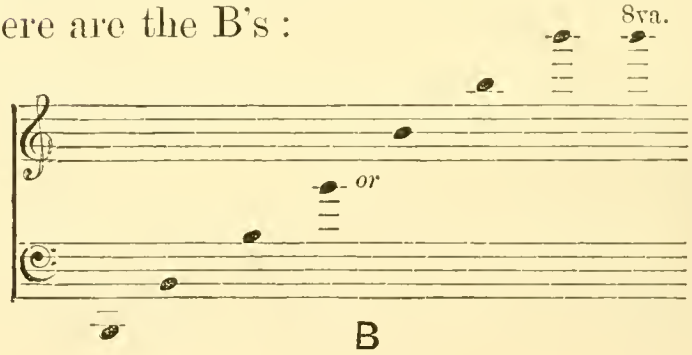
Here are the G's :



Here are the A's :



And here are the B's :



Now, if you study these notes closely, counting the number of lines and spaces above and below the stave, and remembering which bird upon the piano each note represents, you will soon be able to read printed music as easily and quickly as you can read the words upon the pages of a story-book.

HIS RASPBERRIES ARE ON THE TABLE; HE GIVES ONE RASPBERRY TO THY BROTHER.
SES FRAMBOISES SONT SUR LA TABLE; IL DONNE UNE FRAMBOISE À TON FRÈRE.

EASY LESSONS IN FRENCH.

VII.—*TON; TA; TES*—THY.

J'AI LE CHAPEAU DE PAPA.
I HAVE PAPA'S HAT.

A LITTLE French child hears the French words *ton*, and *ta*, and *tes*, very often. They mean *thy*. If an English mamma, or an English nurse, spoke to an English baby, she would say, "Look at your hat, little one; look at your frock; look at your boots. But a French mamma, or a French nurse, would say (in French), "Look at *thy* hat, little one; look at *thy* frock; look at *thy* boots." Which would be, in French,—

"*Regarde ton chapeau, ma petite* (or *mon petit*, if it were a boy baby); *regarde ta robe; regarde tes bottes.*"

It is a French way of speaking. It is well that you should learn this French way, therefore; and I will put some sentences down for you:

Here is thy uncle.
Voici ton oncle.
Here is thy aunt.
Voici ta tante.
Thy uncle has a box.
Ton oncle a une boite.
Here are thy cousins.
Voici tes cousins.

Do you notice? *Ton oncle; ta tante; tes cousins.* Just the same as you learnt *mon, ma, mes*, in the lesson before this; because *ton* is masculine, *ta* is feminine, and *tes* is the plural. I shall put these, again, to some more words, to let you know them better.

Ton gâteau, thy cake.
Ta pomme, thy apple.
Tes prunes, thy plums.
Ton père, thy father.
Ta mère, thy mother.
Tes frères, thy brother.
Ton livre, thy book.
Ta chaise, thy chair.
Tes lapins, thy rabbits.
Ton chien, thy dog.
Ta vache, thy cow.
Tes sœurs, thy sisters.

Learn to put some of these words together also. In this way:—

Thy brother and thy uncles.
Ton frère et tes oncles.
Thy sister and thy friends.
Ta sœur et tes amis.
Thy aunts and thy grandfather.
Tes tantes et ton grand-père.
Thy cousins and thy papa.
Tes cousins et ton papa.
Thy good brother and thy good uncles.
Ton bon frère et tes bons oncles.
Thy little sister and thy little friends.
Ta petite sœur, et tes petits amis.
Thy good aunts and thy good grandfather.
Tes bonnes tantes et ton bon grand-père.
Thy little cousins and thy good dear papa.
Tes petits cousins et ton bon cher papa.

Thy aunt Mary has a large apron.
Ta tante Marie a un grand tablier.
Thy uncle John has a new hat.
Ton oncle Jean a un chapeau neuf.
Thy cherries are black cherries.
Tes cerises sont des cerises noires.
Give one cherry to thy baby.
Donne une cerise à ton bébé.
Thy good little cousin Maurice has a new whip.
Ton bon petit cousin Maurice a un nouveau fouet.
Thy donkey has a new saddle.
Ton âne a une selle nouvelle.
Thy dog Tiny has a new collar.
Ton chien Tiny a un collier neuf.
Thy father has a black coat.
Ton père a un habit noir.
Thy chair is a high chair.
Ta chaise est une chaise haute.

A LITTLE BLACK BOY UNDER A BASKET.
UN PETIT NOIR GARÇON SOUS UN PANIER.

If you have been paying attention to these little French sentences, you will have noticed that *black* is sometimes *noir*, and sometimes *noire*, and sometimes has an *s* after each of these; you will have noticed that *high* is *haut*, and also *haute;* that *new* is *neuf* and *neuve;* and so on with all the French adjectives. It all depends whether the word they are wanted for is *masculine*, or *feminine*, or *plural*. So, also, you can learn about *son, sa, ses*, for *his* or *her*, from the *ton, ta, tes*, and the *mon, ma, mes;* because they change about, or vary, exactly in the same manner; and perhaps if I put a few little

sentences for you, you can learn these at once in this same lesson. They are so easy,—

His dog, thy dog, and my dog are ill.
Son chien, ton chien, et mon chien sont malades.
Her doll, thy doll, and my doll are naughty.
Sa poupée, ta poupée, et ma poupée sont méchantes.
His books, thy books, and my books are new.
Ses livres, tes livres, et mes livres sont nouveaux.
Edward has taken his white pocket handkerchief, thy gold watch, and my black gloves. I do not like Edward.
Edouard a pris son mouchoir blanc, ta montre d'or, et mes gants noirs. Je n'aime pas Edouard.

You have had some new words in this lesson. They are *montre* for watch, *cerf-volant* for kite, *grand-père* for grandfather, *tablier* for apron, and some others that I daresay your quick little eyes will find out. Tell me now, if you wanted to say "A *pretty* watch," should you put the *pretty* feminine or masculine? And if you wanted to say "A *tall* grandfather," should you put the *tall* masculine or feminine?

Write down also for me, in French: thy big kite; thy ripe raspberries; thy little watch; thy beautiful aunt. Pick out for me, to finish with, which of these words are masculine, which feminine, and which plural:—*Tes, ta, son, mes, chiens, petite, ton, ma, tante, plumes, papa, sa, ses, lapins, framboise, ma, ta, sa, cerf-volant, joli, grand, ses, tes, mes, habit, cousin, cousine.*

And try whether, all by yourself, you can say properly, in French:

Thy brother, thy sister, thy uncles.
His coat, her apple, his niece.

THE ISRAELITES OPPRESSED IN EGYPT.

SCRIPTURE STORIES.

THE STORY OF MOSES AND THE PLAGUES OF EGYPT.

MOSES FOUND IN THE ARK OF BULRUSHES.

I HAVE no doubt that you remember the story of Joseph, and how at last his old father Jacob settled in Egypt with all his sons. Jacob was called Israel, as God had commanded, and all the descendants of Jacob were called Israelites. After a long time there came to be a great number of Israelites in Egypt, so that Pharaoh, who was the king of Egypt, determined to make slaves of them, and set them to make bricks.

This was not the Pharaoh who had been so kind to Joseph, for both he and Joseph had been dead for years. All the kings of Egypt were named Pharaoh; and this Pharaoh was not a good man, and did not believe in the true God. He said that all the little boys belonging to the Israelites should be killed as soon as they were born, for he was afraid, as they increased in numbers and grew into men, they would one day rise up against him and against the Egyptians, and make themselves masters of Egypt.

There was one woman belonging to the Israelites who had a dear little boy, and she could not bear that he should be killed, so for the first three months of his life she managed to hide him out of sight. When she could no longer hide him, she put him in an ark made of bulrushes, and hid it amongst the tall weeds which grew by the river's bank. Pharaoh's daughter came down to the river to bathe, and, seeing the little baby, she took him home and brought him up as her own son, calling his name Moses.

THE PLAGUES OF EGYPT.

When Moses had grown up to be a man, God told him to go to Pharaoh and command him to let the Israelites go away into the land of Canaan; but Pharaoh would not obey God, and he made the Israelites work harder than ever.

So God sent ten plagues upon Egypt.

The *first*.—All the water turned into blood.

The *second*.—The plague of frogs.

The *third*.—The dust turned into horrible creeping insects, called lice.

The *fourth*.—A swarm of flies.

The *fifth*.—A disease among the cattle.

The *sixth*.—Boils and blains upon the people.

The *seventh*.—A great storm of hail.

The *eighth*.—A swarm of locusts.

The *ninth*.—A thick darkness.

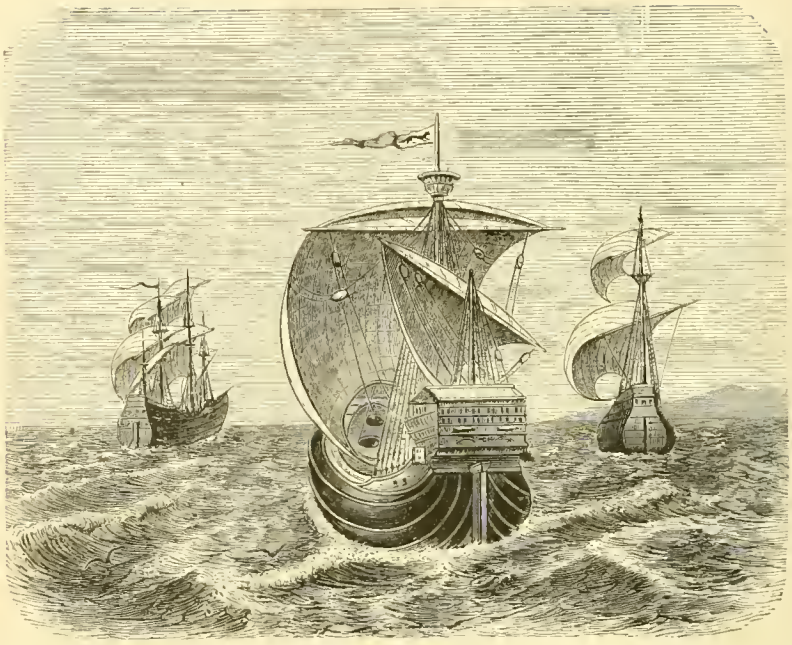
The *tenth* and last was the worst of all, for God caused all the first-born among the Egyptians to die in one night, so that Pharaoh was so frightened that he told the Israelites to go away at once.

THE EGYPTIANS DROWNED IN THE RED SEA.

When they had gone a little way and got as far as the Red Sea, the Israelites began to despair, for they did not know how they should get across to the other side. God, therefore, divided the water, making it to stand up on either side like a wall, while the Israelites passed through upon the dry land, and got safely to the other side.

Now when Pharaoh had let the Israelites go, he began to be sorry that he had done so, and, collecting a large army, he determined to follow them. When the Egyptians came to the Red Sea and saw the dry road right through it, they began to cross over to get to the other side. When they had just about reached the middle, God rolled back the water, so that they were all drowned.

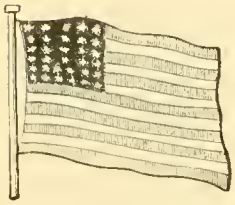
God took great care of the Israelites while in the wilderness which lay between them and Canaan, and at last they entered the Promised Land.



THE THREE SHIPS OF COLUMBUS, SAILING ACROSS THE ATLANTIC OCEAN TO DISCOVER AMERICA.

AMERICAN HISTORY.

HOW CHRISTOPHER COLUMBUS FOUND OUT AMERICA.



THE AMERICAN FLAG.

DO you know where America is? If not, you should get a map of the world and find it out. You will see that it is a very great country, taking up a large part of one side of the world. Now, many years ago, this great country was not known to those people who lived on the other side of the globe; they thought that the earth was flat, or if round, that there was nothing but water on the other side of it.

But a very clever man named Christopher Columbus thought that there must be land over there, because, if not, the land would be all in one part of the earth, and that would not be very likely. From time to time, also, the sea brought some waif or fragment that spoke of a country in the far West: branches of trees and large canoes had been found floating on the waters of the Atlantic. Where did they come from?

So he formed the daring plan of sailing right across the stormy Atlantic Ocean to find out if there was any land there.

He thought over this plan for many days, and he made all kinds of maps and charts to guide him, and then he went to the kings of the different countries in Europe to ask them to lend him ships and men, so that he could sail over the sea to find out the lands of the setting sun.

COLUMBUS IN HIS STUDY PLANNING OUT HOW TO SAIL TO AMERICA.

But he met with many difficulties and disappointments. People would not believe in his plans, and for nearly twenty years he had to struggle against such strong opposition that a less resolute man would have abandoned the scheme in despair.

But Columbus did not give up. The more he thought about the matter, the more he was certain that there was a beautiful land across the seas, and he yearned to sail away across the water to see this wonderful and mysterious land for himself. And his perseverance was rewarded at last. Ferdinand and Isabella, who were the king and queen of Spain at that time, at length agreed to help him.

Three small ships were fitted out and some sailors were engaged, and on the 3rd of August, 1492, they started off.

These sailors troubled Columbus very much; they would

not do as he told them; they were afraid, and frequently wanted to turn back. Day after day passed, and as they saw nothing of this new land, they became more and more afraid.

All around them was the wide ocean, and morning after morning the sun seemed to rise out of the sea, pass over their heads, and sink again at night into the waste of waters. No trace of land appeared. But Columbus cheered them up and urged them to go forward. At last, on the 12th of October, when the day broke, they saw in the clear dawn a dark mass rising out of the water. They knew what it was. It was land at last, the first land of the New World. Oh, how pleased

COLUMBUS EXPLAINING HIS PLANS.

they were at the sight, and how delighted Columbus must have been, to know that his wish was realised at last!

As they sailed nearer the land proved to be an island, green and beautiful to look upon, and dark-skinned natives could be seen running to and fro, quite astonished at the appearance of strangers.

Speedily the boats were launched, and the sailors rowed to the shore; as soon as they had landed Columbus knelt down and thanked God for having brought their perilous journey to such a safe ending. He named the island San Salvador.

Columbus now spent some time in making various other

discoveries, and at last sailed back to Spain to tell the King and Queen what he had found. They were very pleased with him, and gave him many rewards.

The discovery of America and the West Indies having been made under the King and Queen of Spain, great numbers of the people of that country now followed the example of Columbus, and sailed across the Atlantic Ocean to the New World. And I am sorry to tell you that they did not behave at all well to the Indians who lived there.

They seized all the land they could, and ill-treated or killed the people. In about fifty years they had got possession of

COLUMBUS AND HIS SAILORS LANDING ON THE SHORES OF AMERICA.

the most fertile part of America and the West India Islands. The Portuguese too, hearing what success the Spaniards had met with, came over and took possession of that portion of South America now called Brazil.

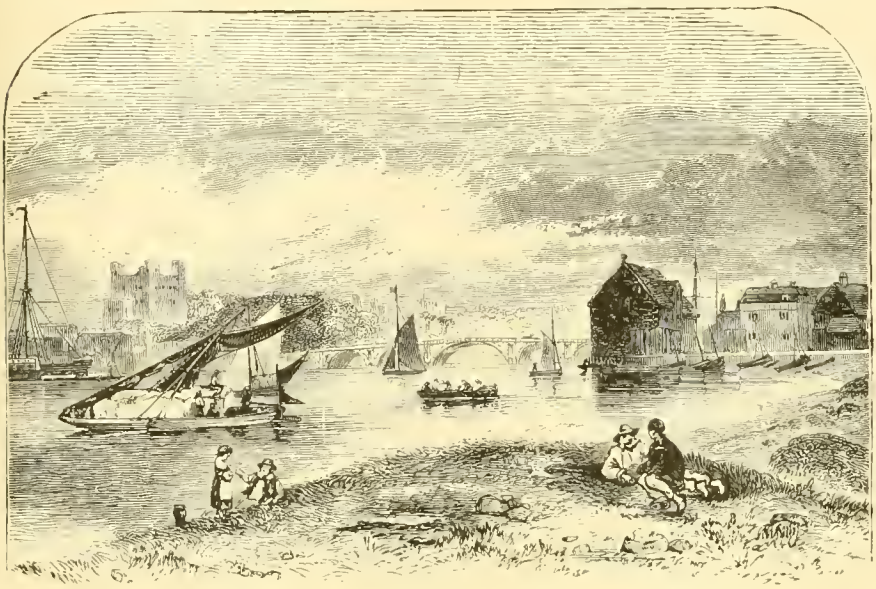
The French, English, and Dutch also came across the ocean and established themselves in various parts of North America, so that in the course of a few years several settlements were made. But this chapter is quite long enough already, and I must tell you more about this another time. Do not forget that it is to the genius and perseverance of Christopher Columbus that we owe the discovery of America.

KINDERGARTEN GAMES AND SONGS.

VIII.—THE CUCKOO.

THIS may be played in two ways. A circle is formed; the children lie down, leaning on the right arm or elbow, and resting their heads on their right hands, pretending to be asleep. One child sings, and at the conclusion of the song they all wake and march round, singing in chorus. Another method is this:—A portion of the children hide themselves in different parts of the room, all singing "cuckoo, cuckoo;" or one sings, and after a time the others who are concealed join in. The remainder walk round the room, singing the song and pretending to search for the others. These now join in one after another, and join in the march and song.

Wake up, the cuc-koo sings, Cuc-koo, cuc-koo; Thro' the wood the
e-cho rings, Cuc-koo, cuc-koo; Say-ing, "Fields no more are drear."
Blue-bell, and prim-rose dear, In the mos-sy bank ap-pear;
Come glad thoughts of sum-mer too, When we hear cuc-koo, cuc-koo.



A BIG BOAT SAIL-ING ON THE RIV-ER.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

VIII.—WORDS OF TWO SYLLABLES.

AP-PLE.

HARRY could now read and spell so easily, that his mamma gave him longer words divided into syllables,—

WORDS OF TWO SYLLABLES, ACCENTED ON THE SECOND.

a-bode	a-base	a-lone	a-like
a-bout	a-bate	a-loft	a-live
a-bove	a-byss	a-long	a-lert

There are others on the next page, and he learned a few every day, just as he had learned the shorter words.

WORDS OF TWO SYLLABLES, ACCENTED ON THE FIRST.

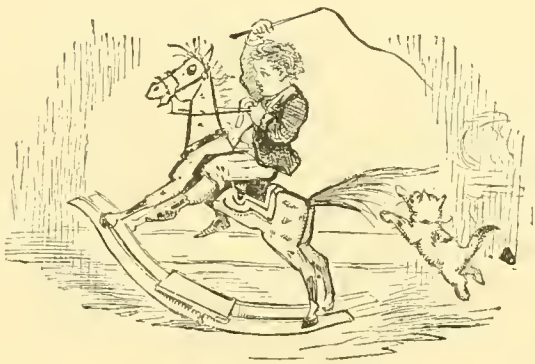
ab-bot	ba-by	ca-ble	dag-ger
ad-der	ba-con	ca-per	dam-son
ad-vent	ba-ker	ca-pon	dam-ask
ad-age	bab-ble	cab-in	dan-cer
ad-verb	bal-lad	can-dle	dap-per
af-fix	bal-sam	can-non	dar-ling
af-ter	bal-tic	ce-dar	das-tard
ail-ment	ban-ner	cel-lar	de-cent
am-ber			del-uge
am-bush			dear-ly
an-chor			dif-fer
an-gel			dim-ness
an-gry			dim-ple
an-vil			din-ner
ant-ler			dol-lar
apt-ness			do-nor
ar-cher	ban-dit	chat-ter	dor-sal
ar-dent	ban-ish	chap-ter	drag-on
ar-my	bar-ley	cher-ry	dra-per
ar-tist	bar-ter	ci-der	dra-ma
art-ful	bat-tle	cin-der	draw-er
art-less	bet-ter	co-sy	dri-ver
ash-es	bu-gle	col-lar	drum-mer
at-las	bun-dle	com-bat	du-ty
at-tic	bur-den	cur-rant	dul-cet
au-ger	but-ter	cus-tard	dul-ness

"LIT-TLE JACK OR-NER."

WORDS OF TWO SYLLABLES, ACCENTED ON THE FIRST.

eat-er
ea-gle
ea-ger
ea-sel
ear-ly
earth-ly
earth-en
east-er
ebb-ing
e-dict
e-gress
ed-dy
ef-fort
el-der
el-bow
em-pire
em-met
em-blem
en-ter
en-try
end-less
en-voy
en-vy
ep-ic
er-ror
ex-tra

fa-ble
fa-tal
fac-tor
fag-got
faith-ful
fal-low
fam-ine
far-mer



"RIDE A COCK-HORSE."

fa-ther
fa-vour
fee-ble
fel-low
fe-male
fen-der
fin-ger
fir-kin
fos-ter
fur-nish

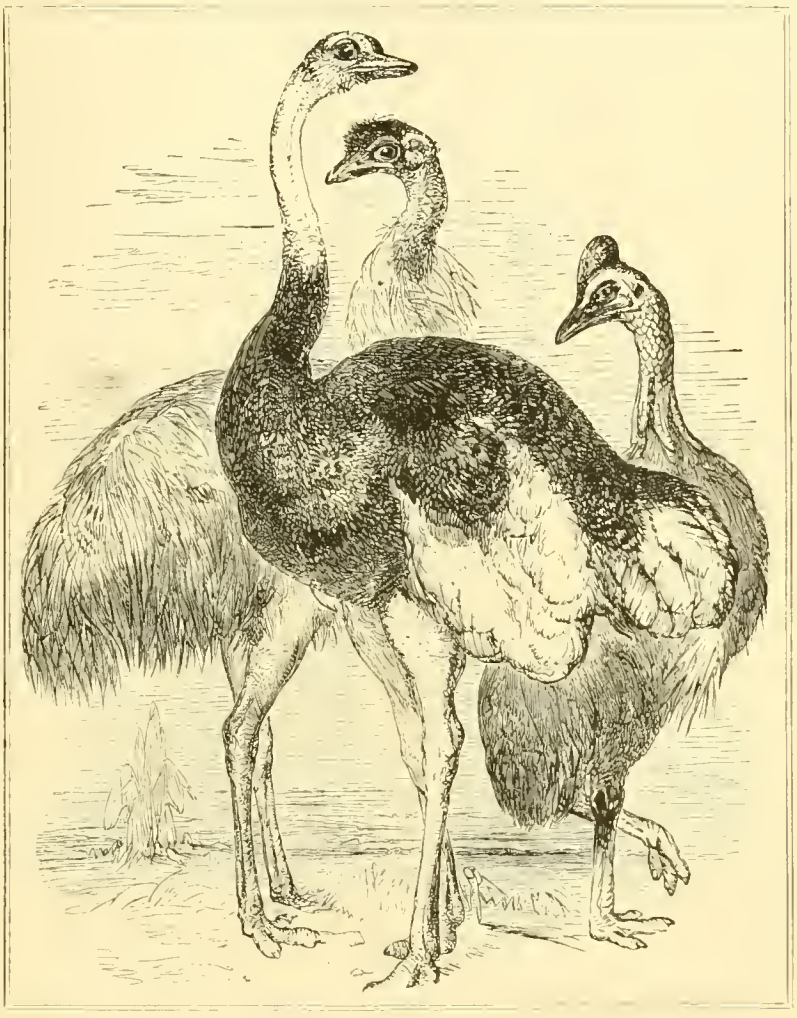
gal-lon
gan-der
gar-den
gen-tle
gid-dy
gim-let
gir-dle
gob-let

god-ly
gos-pel
gos-sip
gro-cer
gul-let
gun-ner
gut-ter
gus-set
gur-gle
gyp-sum

hab-it
ham-let
ham-per
han-dy
hap-pen
hap-py
har-dy
har-vest
hat-ter
hec-tor
hel-met
her-mit
her-ring
hil-lock
hig-gle
hin-der
hith-er
hob-by
hol-land
hol-low
hor-ror
hun-dred
hun-ger
hunt-er
hur-ry
hys-sop

THE FLA-MIN-GO.

The Fla-min-go is a very long leg-ged bird, and it also has a long thin neck, yet the other part of its body is not much big-ger than that of a com-mon Goose. Its feath-ers are a deep scar-let col-our. It lives near the sea, and also near marsh-es and riv-ers and lakes in the warm cli-mates of A-mer-i-ca, A-sia, and Af-ri-ca. The other birds in the pic-ture are the Stone Cur-lew and the Pee-wit.



THE OS-TRICH.

The Os-trich is the big-gest known bird in the world. It of-ten grows eight feet high. It lives in the san-dy des-erts of Af-ri-ca and A-ra-bia, and can run ve-ry fast. It has beau-ti-ful feath-ers. The bird at the back is cal-led the E-mu. It is some-thing like the Os-trich, and lives in Aus-tra-li-a. The other bird is cal-led the Cas-so-wary. It is near-ly as big as the Os-trich, but has no tail.

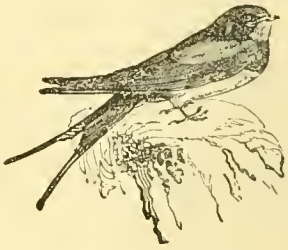
SPAR-ROW.

BULL-FINCH.

CUCK-OO.

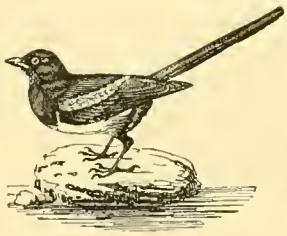
WREN.

GOLD-FINCH.



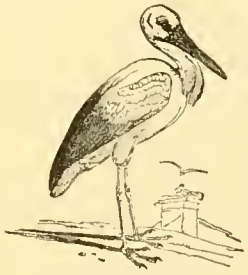
SWAL-LOW.

BLACK-BIRD.



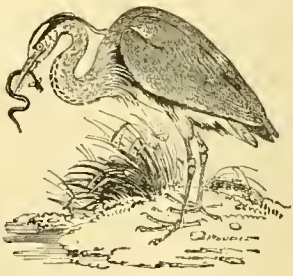
WAG-TAIL.

TUR-TLE-DOVE.

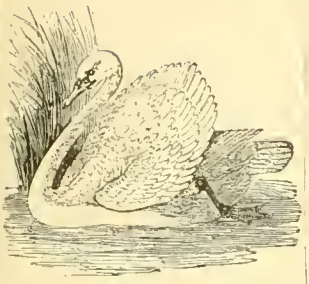


STORK.

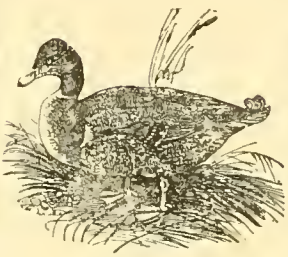
ROB-IN.



HER-ON.

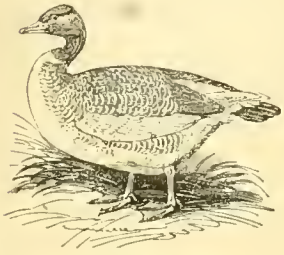


SWAN.

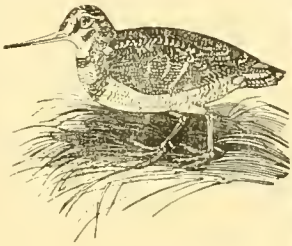


DUCK.

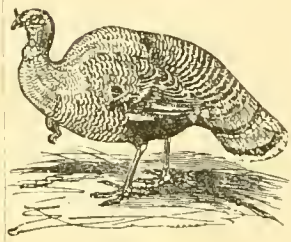
JACK-DAW.



GOOSE.



WOOD-COCK.



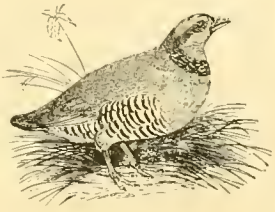
TUR-KEY.

PAR-ROT.

LARK.

STAR-LING.

GUIN-EA FOWL.



PART-RIDGE.

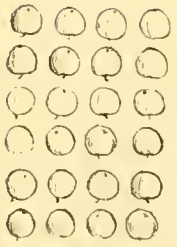
RUFF.

Five	times	1	are	5	Six	times	1	are	6
,,	,,	2	,,	10	,,	,,	2	,,	12
,,	,,	3	,,	15	,,	,,	3	,,	18
,,	,,	4	,,	20	,,	,,	4	,,	24
,,	,,	5	,,	25	,,	,,	5	,,	30
,,	,,	6	,,	30	,,	,,	6	,,	36
,,	,,	7	,,	35	,,	,,	7	,,	42
,,	,,	8	,,	40	,,	,,	8	,,	48
,,	,,	9	,,	45	,,	,,	9	,,	54
,,	,,	10	,,	50	,,	,,	10	,,	60
,,	,,	11	,,	55	,,	,,	11	,,	66
,,	,,	12	,,	60	,,	,,	12	,,	72
Seven	times	1	are	7	Eight	times	1	are	8
,,	,,	2	,,	14	,,	,,	2	,,	16
,,	,,	3	,,	21	,,	,,	3	,,	24
,,	,,	4	,,	28	,,	,,	4	,,	32
,,	,,	5	,,	35	,,	,,	5	,,	40
,,	,,	6	,,	42	,,	,,	6	,,	48
,,	,,	7	,,	49	,,	,,	7	,,	56
,,	,,	8	,,	56	,,	,,	8	,,	64
,,	,,	9	,,	63	,,	,,	9	,,	72
,,	,,	10	,,	70	,,	,,	10	,,	80
,,	,,	11	,,	77	,,	,,	11	,,	88
,,	,,	12	,,	84	,,	,,	12	,,	96

THE FIVE, SIX, SEVEN, AND EIGHT TIMES TABLES.

PICTORIAL ARITHMETIC.

MULTIPLICATION (*continued*).



SIX TIMES FOUR ARE TWENTY-FOUR.

I HOPE you have now learned your tables as far as "four times," so that you can say them easily, and without the help of your cubes. If so, we can go on to try a few more little sums.

I only give you a few examples here, and show you how to do them, but you should do many more than these.

Here is a very easy one upon the Twice table,—

7 8 3 2
2
1 5 6 6 4

You begin at the right hand and say twice 2 are 4, and put down the 4 as you see it in the sum.

Then you say, twice 3 are 6, so 6 is the next figure to be put down. Twice 8 are 16; down goes 6, and the 1 is added to the next figure. The last figure is 7. Twice 7 are 14, and 1 carried from the previous figure makes it 15. As it is the last figure we put the whole of it down, and the sum is done.

Now for a little sum upon the Three times table.

8 6 9 3
3
2 6 0 7 9

Three times 3 are 9. Three times 9 are 27: down goes the 7, and we carry on the 2. Three times 6 are 18; by adding in the 2 we make it 20. Of course we put down the 0, and carry on the 2. Three times 8 are 24, and 2 added to it makes it 26: down goes the whole figure, and the sum is finished.

Here are two sums upon the Four times table. I shall leave you to work them out for yourself.

4 6 7 3 8 2
4
1 8 6 9 5 2 8

6 5 2 7 4 3
4
2 6 1 0 9 7 2

You should do several little sums every day until you can work them easily.

Now let us go on with the rest of the Multiplication table as far as "Eight times." You will see them printed on the previous page.

You should count these out with your cubes every day for some time, as it will be good practice for you, and help you to learn the tables perfectly, so that you will be able to do some more little Multiplication sums quite easily.

DEATH OF WAT TYLER.

THE HISTORY OF ENGLAND IN EASY LESSONS

RICHARD II.

How Richard met Wat Tyler at Smithfield, and how Tyler was killed. How Richard was disliked by the people, and dethroned.

RICHARD II. STOPPING THE COMBAT BETWEEN THE DUKES OF HEREFORD AND NORFOLK.

WHEN Edward III. died, his grandson Richard was made king. He was only a little boy of eleven years old, but a Council of twelve clever men were chosen to rule the country. Sometimes Richard was weak and foolish, but sometimes he was very brave. I will tell you of one occasion when he was brave. About five years after he was crowned king, a riot which became almost as bad as a civil war broke out. It was caused by a tax which the King wanted the people to pay.

The people thought this tax unjust, and they gathered together in a great army, under the leadership of two men called Wat Tyler and Jack Straw. They came to London, where they burned a number of private houses and killed many honest persons.

Then the King met them at Mile End, and granted some of their requests; but this was not enough, so, after a day or two, Richard met them again at Smithfield. While they were speaking, Walworth, the Lord Mayor, thought Wat Tyler was going to kill the King, for he fancied he saw his hand on his dagger, so he knocked Wat Tyler off his horse, and as the rebel leader lay on the ground, he was stabbed by one of the King's esquires.

Then Wat Tyler's followers were beginning to fight, and a dreadful battle might have occurred, only Richard boldly rode up to them, crying, "Tyler was a traitor; I am your King, and I myself will be your leader."

This quieted the crowd, and in a short time the rebellion was at an end, mainly through Richard's bravery.

WHY THE PEOPLE DISLIKED RICHARD.

But he was not always so brave, and he wasted much money with bad companions. Even when he married a nice gentle lady, called Anne of Bohemia, she could not persuade him to part with his evil companions. These bad men led him into all kinds of wrong-doing, so that he neglected his people, and they were much ill-treated by some of the nobles and tax-collectors. This made them discontented with him.

King Richard had many troubles with the great nobles. They thought that with so young a king they could do as they liked; and once when two of them—the Dukes of Norfolk and Hereford—quarrelled and were about to fight, he threw his staff between them and stopped them. Then he banished them from the country—Norfolk for life, and Hereford, who was his cousin, for ten years. Then Richard seized his estates.

But Hereford conspired against him, and as he had always been kind to the people, many of them began to wish him to be king instead of Richard, because, as I have just told you, they were getting very discontented with him.

So Henry, Duke of Hereford, landed at Ravenspur, in York-

shire, and he had only twenty men then, but when he reached London, 60,000 had rallied round his banner. Soon after, Henry took Richard prisoner, and then Parliament met, and decided that Richard was too extravagant and cruel to be king any more, and that his cousin Henry should be king instead. And before six months were over the dethroned King perished in the dungeons of Pontefract Castle, whether by starvation or by an assassin's sword is not known.

HENRY IV., FIRST KING OF THE HOUSE OF LANCASTER.

The new king was son of John of Gaunt, Duke of Lancaster, who was the third son of Edward III. For a long time after he became king, he was busy making good laws for the people, and on the whole he was a good king for England.

But he was continually disturbed by rebellions. His greatest enemies were the Earl of Northumberland and his son, who was called Hotspur, because he was very impulsive and hot-tempered. At last they met the King at the battle of Shrewsbury, when Hotspur was slain, and Henry gained the day.

During his reign the first execution for religious opinions took place. A good clergyman, named William Sautre, was burned because he did not agree with the Bishops. For some time the followers of John Wycliffe, who were called Lollards, had been increasing in numbers. They loved to read the Bible in English, and could not agree with all that the Romish Church and its Bishops taught. Henry IV. died in 1413.

HENRY V., THE VICTOR OF AGINCOURT.

Some people thought that the eldest son of Henry IV. would not be a good king, because while his father was alive he was very merry and very thoughtless. But they were mistaken. The riotous Prince became a brave and wise king; and, indeed, he was one of the best kings England ever had.

But while his father was alive he was a rather troublesome Prince; and once, when Lord Chief Justice Gascoigne had sentenced a companion of his to prison, Henry went to the Court where the Judge was, and drew his sword upon him. But the wise Judge was not at all afraid, and at once ordered the young Prince to be sent to prison, thus showing that kings and princes as well as subjects must obey the laws. Prince Henry

had the sense to see this when his fit of passion was over, and he thanked the good Judge who had punished him, and made very humble apologies. And when he became king he often asked the advice of the wise Judge.

Henry won a great victory over the French at Agincourt,

THE BATTLE OF AGINCOURT.

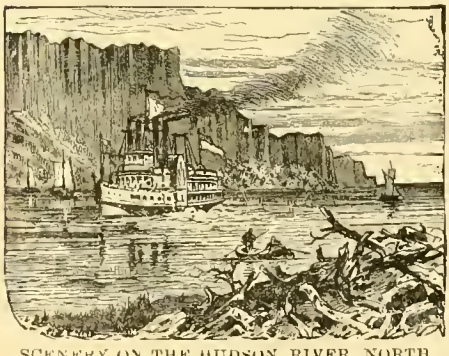
when, with only 15,000 men, he beat a French army numbering over 50,000. This was in the year 1415, and was as great a victory as Crecy and Poictiers. Not long after this he died when still a young man, and the English people were very sorry at his death.

THE FALLS OF NIAGARA.

[These are the largest and most wonderful waterfalls in the world. They are in the river Niagara, which flows from a very large lake, called Lake Erie, northward into Lake Ontario, and forms part of the boundary between the United States and Canada. After leaving Lake Erie for some time, the river becomes narrower and rushes very fast, and then falls down over a rocky precipice into the river below, as you see it in this picture. There is an island called Goat Island just where the water begins to fall, and this divides it into two falls. One is on the Canadian side, and is called the Horse Shoe Fall, where the water tumbles down 154 feet, and the fall on the American side is 163 feet in depth.]

GEOGRAPHY.

THE LAKES OF NORTH AMERICA.



SCENERY ON THE HUDSON RIVER, NORTH AMERICA.

THE lakes in America, as well as the rivers, are very large. There is the great Salt Lake, near the side of the Rocky Mountains; there is Lake Superior, which is so big that all Denmark could be dropped into it; there is Ontario, which could drown Sicily; and there are others almost as large—Michigan, Erie, Winnipeg, Nicaragua, Manitoba, the Great Slave Lake, the Great

Bear Lake, and thousands of smaller ones dotted all over the country. Between the two lakes, Ontario and Erie, are the Falls of Niagara, the most majestic and beautiful in the world.

There are several other great waterfalls in America, but we have only room to mention two—the "Great Falls" on the river Missouri, and the falls of St. Anthony on the Mississippi, where the water falls straight down 16½ feet.

THE GULFS AND BAYS OF NORTH AMERICA.

Some of the gulfs are very large. They are, the Gulf of California; the Gulf of Mexico, which is a very large gulf indeed, into which runs all the water of the Mississippi; and the Gulf of St. Lawrence. The bays are Hudson, Baffin, Fundy, Chesapeake, Honduras, and Campeachy. The straits are Behring's Strait, just cutting America away from Asia; Davis Strait, Hudson's Strait, the Straits of Barrow, Banks, Belleisle, and Florida. You should find out all these on the map and look well at their positions, so that you can remember them. In North America, also, there are vast tracts of land covered with grass, called prairies. One, in Illinois, is 150 miles long and 14 miles broad.

THE LARGE TOWNS OF CANADA.

Now you must hear something about the towns in North America. In Canada (the part of North America which belongs to England) there are three very large towns. Montreal is one; it is built on an island in the River St. Lawrence. It is a very handsome city, and many railways run into it, which bring corn from the great farms to be put into the ships waiting for it. Quebec is the second of these large Canadian cities. It stands on a hill, and has a fortress. Toronto is the third, and is the capital of Ontario. Half a century ago it only had 3,000 people in it; now it has 60,000. Other large towns are Ottawa and Hamilton. Ottawa is what is called the seat of government; that means that the House, or Assembly of Members, is there, where the laws are made. The laws are English laws, and the present Governor of Canada is the Marquis of Lorne, and his wife is the Princess Louise, one of the Queen's daughters. Besides corn, Canada sells her timber. In

Canada there are miles of forest, and the men cut down the trees that form the forests, and send them to England and elsewhere.

THE CITY OF NEW YORK.

[New York is the largest commercial city and seaport in the United States. It is built on the southern part of Manhattan Island. The city also includes other islands upon which suburbs are built; on Long Island are Brooklyn and Williamsburg, and there are several bridges between. Manhattan Island is about thirteen miles long by two miles wide, and at the extreme point is "The Battery," a beautiful park-like enclosure of twenty-one acres, protected by a strong sea-wall. From the Battery proceeds the famous Broadway, the principal street of New York; it is three miles long, and eighty feet wide, and contains some of the most handsome hotels and shops in the world.]

THE LARGE TOWNS OF THE UNITED STATES.

In the United States some of the towns are very large. There is New York, with Brooklyn, which is now part of it, only on the other side of the East River. Jersey City and Hoboken also form part of New York. The Americans call it their

"Empire City." It is very splendid, with a great many hotels and large buildings in it, built of marble, and it holds altogether a million and a half of people. The water for the use of all these people is brought from the Croton River, in an aqueduct which is forty miles long.

Boston, another beautiful city, is built of granite, and its harbour is always very full of shipping. The part of Boston called Cambridge is well known because Harvard University is there, the head University in the States. Washington is the "seat of government;" its streets are enormously wide. Chicago is the city where there was a terrible fire in 1871. It is on the shore of an immense lake, which carries so many ships that there are 10,000 sailors wanted to navigate them; fifty years ago Chicago only held about 75 people, now there are 350,000.

Philadelphia has houses of red brick, like English houses; but these houses have marble steps in front of them, and there are beautiful trees growing in the streets, in long shady rows, so it does not look like England after all.

Baltimore has a fine port. Down the very middle of it there tumbles a rapid stream called Jones's Falls. It brings beautiful drinking water, and it turns a number of mills.

New Orleans, in that big Gulf of Mexico, just by those great mouths of the Mississippi, has the largest building in any of the States. It is the Custom House; a place where goods are examined, and where customs, or tolls, are charged for some sorts of goods before they are allowed to go out or to go in. New Orleans is always busy with ships carrying these goods away or bringing other goods in again. San Francisco is another city that has grown very big, though it has been burnt down several times. It is in California, and it has grown because of the gold which is found near to it, and which brings a great many gold-diggers to get the gold up.

THE PRODUCTS OF NORTH AMERICA.

As North America is so very large, stretching from the bitter cold of the North Pole nearly down to the intense heat of the Equator, there are all sorts of climates in it. Up in the north there will be ice, snow, rain, darkness; down in the south it is very hot, and there are rice and cotton fields, and the

cactus plant, with lovely magnolias, and rhododendrons, and azaleas are found. In the north part of the States there are plenty of barley, rye, and potatoes growing; in the south part there is plenty of sugar, and bread-fruit, and coffee; these last grow in "plantations," where the slaves used to work. The slaves were negroes brought from Africa on purpose to work these plantations; but there are no slaves in the United States now; they have been made free.

Coal is found in North America, so is iron; so are gold, silver, tin, copper, mercury, and salt. The animals up in the cold parts are the polar bear, the reindeer, the moose-deer, musk-ox, beaver, and the pretty little white ermine with its black tail: in the water there are seals and whales. Lower down there are pumas, jaguars, and in the rivers and the ugly swamps there are alligators, sometimes called the cayman.

That part of the very top of North America called Greenland belongs to Denmark. You will see Newfoundland there, also, and Labrador. Most of these places do large business in fishing; in seals, for seal-skins; and in whales. In the Hudson's Bay Territory a number of animals are killed for their fur.

MEXICO, CENTRAL AMERICA, AND THE WEST INDIES.

Mexico is a part of North America, and lies between the Pacific Ocean and the Gulf of Mexico. A chain of mountains runs down the middle of it, called the Sierra Madre; these mountains form high and beautiful table-lands.

The capital city is called Mexico, but it is not very large, and there are not many large cities. Once the country belonged to Spain, but it became independent in 1821; it is now a republic, and the religion is Roman Catholic. Sugar, indigo, coffee, and tobacco grow there, and silver and gold and several other minerals are found.

Central America is that narrow piece of land lying between Mexico and South America. The climate is very hot, and in many respects it is like Mexico. The mahogany and box-wood trees grow here, and are largely exported.

The West Indies include all those islands lying around the Gulf of Mexico. Some of these islands belong to England, and from one of them, Jamaica, a great deal of sugar is brought.

SOMETHING ABOUT SOUTH AMERICA.

I told you that if you looked at a big map you would see two Americas, the top one called North America, and the lower one called South America.

In your own little map of North America, you see the land gets narrower and narrower at California and Mexico, narrower still after that, and that at last it looks as if there were only just room for you to walk into South America by that neck, or Isthmus, called Panama. But it soon gets very much

wider. From only measuring about 50 miles across, it gets to measure, at the widest part, about 2,000 miles; and it is 4,700 miles long, or a great deal longer than Europe with all its countries together.

THE COUNTRIES OF SOUTH AMERICA.

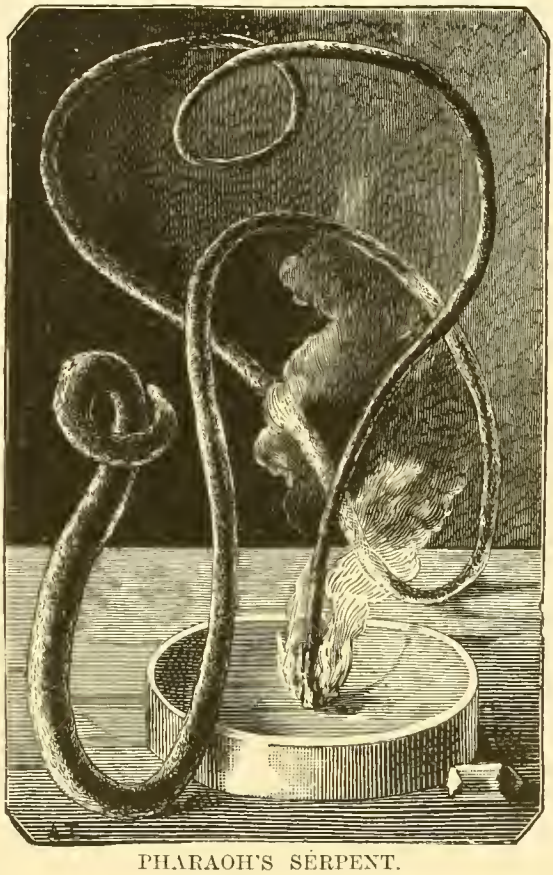
Some part of South America is called Guayana, and this is divided into Portuguese Guayana, French Guayana, Dutch Guayana, British Guayana, and Spanish Guayana; for each of these countries has taken possession of a piece, and each has what is called a Colony there. In the English piece there is that important place, or district, called Demerara, of which you often hear, that is where the Demerara sugar comes from.

The largest district in South America is called the Brazils. Through the Brazils flows that wonderful river called the Amazon, which is the longest in South America. Another large district is La Plata, watered by the river of that name, called Rio de la Plata, Rio being the Spanish for river. Buenos Ayres is at the mouth of this. Then you must look for Patagonia; for that narrow strip of land between the mountains and the sea called Chili; for Peru, where the gold and silver mines are; for Paraguay; for Bolivia; and for Colombia.

THE RIVERS OF SOUTH AMERICA.

Now look for some of the other great Rios or rivers, besides the Amazon and La Plata. These are Rio Grande de San Pedro, the Paraguay, Essequibo, Orinoco, Francisco, Para, Parana, Ucayali, Colorado, and others not so important. The mountains running all down the west coast of South America are called the Andes and the Cordilleras, and at some places, such as Chimborazo, they rise so high they are the highest mountains in the world.

Many cities are built on the very feet of these mountains, but they are not healthy, and fever breaks out in them very often, killing hundreds of people. The cities of which you will hear the most are Lima, with its port Callao, and Valparaiso; then coming round Cape Horn, or through Magellan's Straits, whichever you like best, to get to the eastern coast, you will see Monte Video, Rio Janeiro, and Bahia or San Salvador, and Pernambuco. There is Potosi also: that is where a great deal of silver comes from.



PHARAOH'S SERPENT.

[Chemistry helps us to make some funny toys. This is one. It is too hard and dangerous for children to make, but I will tell you about it. Some stuff, called by a long hard name, *sulpho-cyanide of potassium*, is poured into *a solution of nitrate of mercury*. This, you see, is a mixture of different things. But a new substance is formed, called *sulpho-cyanide of mercury*, and it falls to the bottom of the glass. This is a compound, and when it is mixed with gum and a white powder called *nitrate of potash*, it can be made into little cones and dried. This we may call a serpent's egg, and when lit it slowly gets larger and larger in the shape of a real serpent, rising up and coiling round and round as you see it in the picture. Is not this a funny toy? Perhaps papa will get you one and let it off, only you must not get too near, for it sends out a nasty smell, and the serpent, too, like other serpents, is poisonous, and should be burnt or thrown away.]

CHEMISTRY FOR CHILDREN.

LESSON III.—THE BREAKING UP OF COMPOUNDS.

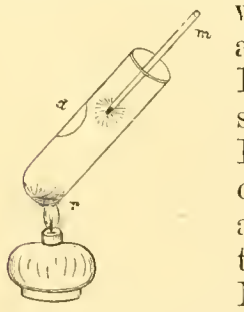
ONE can break up anything that is made of simple parts. An article of furniture, like a chair, for example, which is made of pieces of wood, may be broken up directly. The stately ship which has sailed on every sea, and looks like a

thing of life, when wrecked is broken to pieces by wind and tide, and resolves itself into bolts, bars, beams, and spars. In fact, any handiwork of man may be broken up into its parts.

A compound is a thing made by nature. The parts of it are not fixed together like a piece of joinery work, but are drawn together by a mighty force which transforms the elements into the compound, so that their simpleness as elements is lost sight of. This force which draws the parts of the compound together is stronger by far than that which draws a needle to a magnet, and the parts of the compound are held faster to each other than ever screw or bolt held together the parts of any article. It is, therefore, not possible to break up a compound in the usual way. A person might use the hatchet, the mallet, or any other mechanical contrivance whatever to break up a compound, that is, to separate its elements from each other, but he would never be successful. The compound was formed by nature's forces, which exceed man's unaided strength millions of times; and to break the compound up into its elements other forces of nature must be used.

SOMETHING ABOUT HEAT, AND HOW IT CAN BREAK UP COMPOUNDS.

Heat is one of nature's great forces. It is a giant force which lifts thousands of tons of water in the form of vapour every day from the surface of the ocean, and it does it in a silent and unobtrusive way. It is the heat of the fire under the boiler which makes the steam, which by means of an engine turns all the machinery in large mills. And heat, when applied to some compounds, will tear asunder the elements of which they are made. Here is an example. There is a poisonous substance of a red colour, called *red precipitate*. It is a compound of oxygen and mercury, and chemists call it an *oxide* of mercury. Oxygen, as you already know, is an invisible gas, and the mercury is a heavy, silvery-looking liquid. Now by heating this compound *r* in a glass tube rounded off at one end (such tubes are sold under the name of *test tubes*), the mercury is separated from the oxygen. It may be made plain to the eyes. In the first place, the



mercury collects as at *a*, and looks like a looking-glass. By taking a stick and rubbing it over the mercury at *a* it will be found to run into little round drops. But what about the oxygen? If it is invisible, how can one tell that it is taken out of the compound? It so happens, and it is a fact of very great importance, that oxygen makes things burn very well, and is really necessary for them to burn. It is only needful, therefore, to have a half-burnt match ready to hand. Light it and then blow it out, so that its charred end is red hot. Place the red-hot end in the test tube; it will begin to glow, and will soon break out into a blaze. The scientific man calls such a trial an experiment. If no oxygen had been there, or if there had been some other gas there instead of oxygen, the match, *m*, would have gone right out.

Here, then, a compound is broken up into its elements by the powerful aid of heat, when no amount of braying in a mortar would have done it. By braying in a mortar the red precipitate would only have been made into a fine powder, and however fine the powder the smallest bit of it would still have contained oxygen and mercury in the same proportion as the whole lot.

A LITTLE TALK ABOUT CHALK.

Chalk may be broken up by heat. But do you know what chalk is? Yes, you say with a smile. Now take your slate and write down on it all you know about chalk. All you write will perhaps only amount to this: "Chalk is a white substance which the teacher uses for writing on the black-board." We may tell you that chalk is a very interesting substance. It is formed, for the most part, of the shells of exceedingly minute animals which lived millions of years ago. The white chalk cliffs which bound a great part of our English coasts are made of chalk. All this chalk was once the bottom of an ocean, whereas now, strange to say, one sees it forming part of the dry land. When we come to consider the chemistry of the chalk, it soon appears that it is a compound, and has in it three elements, carbon, oxygen, and calcium. In every 100 lbs. of chalk there is about 48 lbs. of oxygen, 12 lbs. of carbon, and 40 lbs. of calcium. Just fancy, then, how much oxygen is stored up in those white chalk cliffs extending for miles upon milesalong the sea coast and into the land! This carbon is

also a very common element; charcoal is an impure form of it. Calcium is a metal.

As we have said, chalk may be broken up by heat. This is done on the large scale in lime-kilns, where chalk or limestone is heated strongly. The chalk is not broken up, however, into its elements, but only into two other compounds called lime and carbonic acid. These are two oxides, lime being an oxide of calcium, and carbonic acid an oxide of carbon. Thus we may represent the change as follows:

CHALK	*gives*	LIME	*and*	CARBONIC ACID
made of		made of		made of
carbon, oxygen, and calcium.		calcium and oxygen.		carbon and oxygen.

Some compounds are exceedingly difficult to break up by means of heat. Water is one of them. It has, however, been separated into its elements, oxygen and hydrogen.

Sugar is an example of a compound that may be broken up most readily without heat. It contains carbon, oxygen, and hydrogen, and the oxygen and hydrogen are in such proportions that one may say sugar is a compound of carbon and water. Now there is a very thirsty substance, called oil of vitriol (sulphuric acid), which the druggist sells. This oil of vitriol drinks in water vapour out of the air, and if some of it be poured on to sugar in a saucer it will soon drink the water out of the sugar and leave nothing but black carbon. The sugar is in this way broken up into carbon and water; the black carbon being there before one's eyes, and the water being drunk up by the thirsty oil of vitriol.

QUESTIONS ON LESSONS I. II. & III.

What important things does Chemistry teach us?

What sort of water is a snowflake?

What sort of water is steam?

Air is a mixture of two gases. What are their names?

Tell the names of two metals which are in the sun.

Which are simple substances and which compounds among the following: iron, common salt, brimstone, lead, iron rust and water?

What is the difference between a mixture of two things and a compound made of the same two things?

By what means can the elements in a compound be separated from each other sometimes?

What is an experiment?

What gas will make a half-lit match burn brightly?

What is chalk, and what are the elements in it?

What is water made of?

A PRETTY LITTLE GAME.—*UN JOLI PETIT JEU.*

EASY LESSONS IN FRENCH.

EIGHTH LESSON: A FEW LITTLE WORDS AND PHRASES.

A POOR LITTLE BOY IN THE SNOW.
UN PAUVRE PETIT GARÇON DANS LA NEIGE.

BEFORE you read the little sentences on the next page, I want you to learn some of the French words you will find in them.

La nourrice, the nurse.
La plume, the feather.
Le chaton, the kitten.
Les souliers, the shoes.
Les souris, the mice.
Les oiseaux, the birds.

Now you may go on reading, and you should read the sentences over several times, so that you may remember the words.

Thy nurse has a pretty feather for thy hat.
Ta nourrice a une jolie plume pour ton chapeau.
Thy cousins William and Henry have a large kite.
Tes cousins Guillaume et Henri ont un grand cerf-volant.

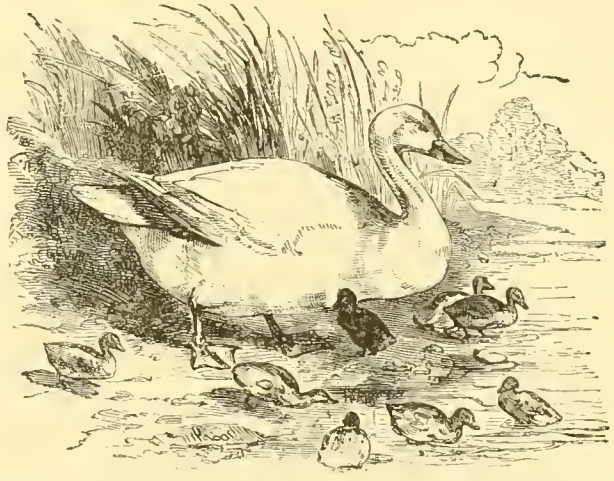
And thy cousins Arabella and Laura have a new doll.
Et tes cousines Arabelle et Laure ont une nouvelle poupée.
Thy friend Edward is carrying my kitten.
Ton ami Edouard porte mon chaton.
My kitten is scratching thy friend Edward! And Edward cries!
Mon chaton égratigne ton ami Edouard! Et Edouard crie!
Thy uncle Frederick has brought thee some white mice.
Ton oncle Frédéric t'a apporté des souris blanches.
Thy white mice are pretty.
Tes souris blanches sont jolies.
Thy cousin Margaret has brought thee some ripe cherries.
Ta cousine Marguerite t'a apporté des cerises mures.
Here is his pencil. *Voici son crayon.*
Here is her pen. *Voici sa plume.*
Where are his shoes, and thy shoes, and my shoes?
Où sont ses souliers, et tes souliers, et mes souliers?
His cow is a white cow; thy cat is a black cat; my birds are yellow.
Sa vache est une vache blanche; ton chat est un chat noir; mes oiseaux sont jaunes.
His dear papa; his dear mamma; his dear little brothers.
Son cher papa; sa chère maman; ses chers petits frères.
Her aunt is pretty; and thy aunt is pretty; but my aunt is beautiful.
Sa tante est jolie: et ta tante est jolie; mais ma tante est belle.
His cousins went to his house; they love to play there.
Ses cousins allèrent à son champ; ils aiment à jouer là.

I hope now that you thoroughly understand the meaning of the words, *mon, ma, mes; ton, ta, tes; son, sa, ses; le, la, les; de, de la,* and *des;* and also *un* and *une.* I must now teach you some little phrases that are in constant use, such as—

If you please, *S'il vous plait.*
Shut the door, *Fermez la porte.*
Good morning, sir, *Bon jour, monsieur.*
Good evening, madam, *Bon soir, madame.*
How do you do? *Comment-vous portez-vous?*
I am very well, thank you, *Je me porte très bien, merci.*
No, thank you, *Non, merci.*
Open the door, *Ouvrez la porte.*

It is fine weather, *Il fait beau temps.*
No, it is wet weather, *Non, il fait mauvais temps.*
Are you hungry, *Avez-vous faim?*
Are you thirsty? *Avez-vous soif?*
I am hungry, *J'ai faim.*
I am thirsty, *J'ai soif.*
Good-bye, *Adieu.*

From these little phrases you will see that *je suis* means "I am," but that the French say *j'ai faim* for "I am hungry," because they really mean *I have hunger. Je suis* means, "I am," and *j'ai* means "I have."



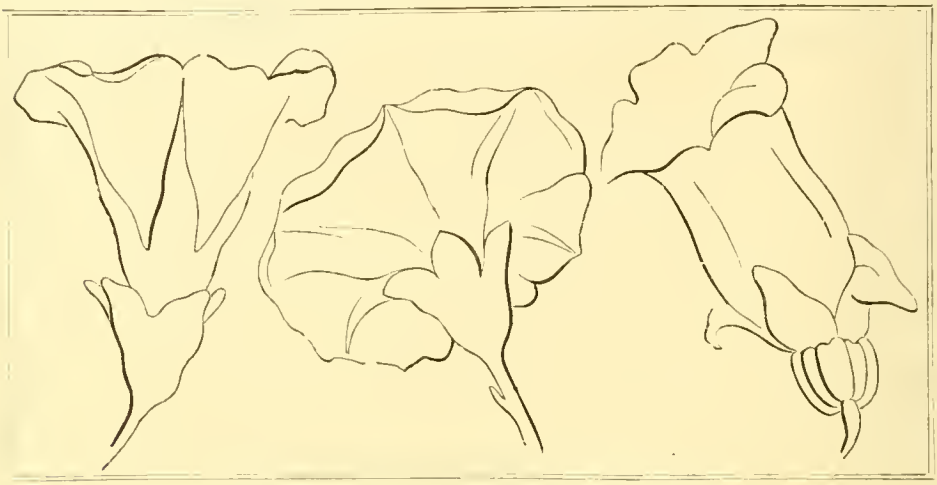
LA CANE ET SES CANETONS SONT PRÈS DE L'EAU.
THE DUCK AND HER DUCKLINGS ARE NEAR THE WATER.

Now, to finish this lesson, here are a few sentences in French about the pictures on this page. Try and read them without the English first:—

Une cane et ses canetons allèrent à l'eau. Ils aiment l'eau. La cane dit "Quack, quack," et les canetons diront bientôt "Quack, quack," aussi. Elle est une bonne mère cane; elle garde bien ses canetons.

This, in English, means word for word:

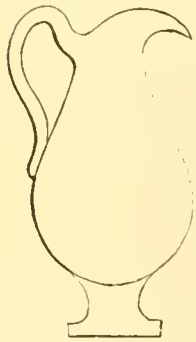
A duck and her ducklings went to the water. They love the water. The duck says, "Quack, quack," and the ducklings will say soon, "Quack, quack," also. She is a good mother duck; she guards well her ducklings.



OUTLINES OF FLOWERS FOR PRACTICE.

DRAWING LESSONS FOR THE YOUNG.

CHAPTER V.—DO NOT BE IN TOO GREAT A HURRY OVER YOUR DRAWING; TAKE PLENTY OF TIME AND TROUBLE OVER IT.



OUTLINE OF SMALL TERRA COTTA VASE FOR PRACTICE.

THERE are many other natural objects besides leaves and flowers which will give you a great deal of pleasure if you look well into them, and draw them, and you never will see all the beauty in them until you begin to draw them, and begin, too, to find out what difficulties there are in drawing them. In drawing, as in everything else, there are many difficulties to be overcome, but it is the very fact of overcoming these difficulties which makes our work so pleasant.

If everything were quite easy to do we should have no pleasure in doing it; so do not be discouraged when you come to something harder than usual, for it is just that which will give you most pleasure when you have overcome it. Things look much prettier when you have taken a little trouble to do them.

Another great point in drawing is not to be in too great a hurry. You can never do a thing well if you are in a hurry about it. An old proverb says, "the more haste the less speed," so that when you are in a hurry you really do not get on so fast as if you took things quietly, for if you are calm

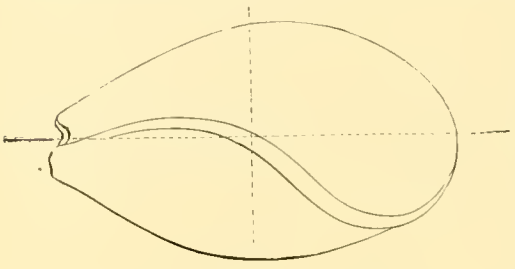
over your work each little bit is done well, and then there is no trouble in the end, but if you hurry on at the beginning then you make mistakes, you get wrong proportions and wrong distances, and it is a great deal more difficult to get things to go fairly well afterwards, and you cannot ever get things quite right; whereas, if you had begun slowly your proportions would be right and your distances would all have agreed, and then you would find all the smaller lines would fall into their places without any difficulty whatever. So never be in a hurry, especially at the beginning of a drawing.

HOW TO DRAW A SHELL.

Now, supposing you go down to the sea-side and find a shell, what a pretty thing that would be to draw when you get home. Shells are some of the most beautiful and curious things that you can see. Fancy that each shell has had its own little inhabitant, which grew, and which made its little house grow with it. The house grew very slowly, and you could not see the building of it as you can see the building of our houses, for the little creature did not want any scaffolding; there he was inside all the time, and he only put a little more mortar, or cement you may call it, on the edge of his house and waited till this got hard, and then put some more, and so on. In this way the house grew. He was not in a hurry, so he did it well, and he kept to the same kind of curve, and the same sort of ornament all throughout; this little creature did not care for change or new fashions, but kept to his old plan, and the lines that his father had used before him.

Let us now try and draw the little house that he has so carefully built, and imitate the lines that he was so long in making. First of all, notice what beautiful curves all these are: no two are alike; you could not draw any part of them with the compasses, they are all much prettier than any lines you could make in that way. Now, how are you to begin? Hold your pencil across the shell as it lies on the table, and notice where it crosses all the various curves, and how far they are apart upon the pencil. In our drawing given in the figure on the next page, the dotted line shows where the pencil would come. You may rule a dotted line like this if you like, very lightly, so that you can rub it out when you have finished

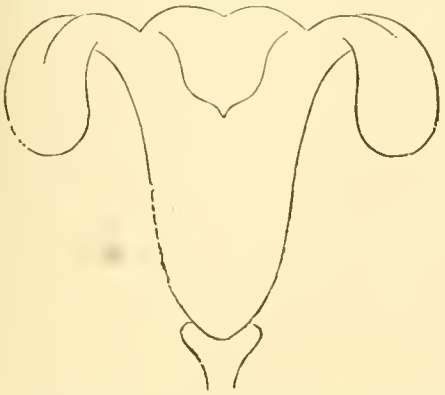
the drawing. Next you will mark off on this line how long you think the drawing ought to be, and having settled this, cut off a little piece (really about an eighth) for the three little curves at the end. Now you can judge how far across it will be to where the open part of the shell begins, and the opposite side will be almost the same. Next you can begin to put in very lightly the curve up to this point, and on from there to where the dotted line touches the open part. This and all the other similar lines should be drawn very lightly, because you are apt to make mistakes which you can see if you look at your drawing afterwards, and then you must correct them, rubbing out the wrong lines with a piece of stale bread or with soft india-rubber. Mind you do not rub too hard or you will spoil the paper, and then you cannot make your drawing look nice afterwards. Get one line to look quite right before you go on to the next. Now you may try the line below the dotted line in the same way, but notice it is quite different from the one above. It bulges out at a different place, and comes to the point at another curve.



HOW TO DRAW CURVED LINES.

Having done the two chief curves very carefully you can easily see how far the little curls at the end ought to go out; and notice here again that these little rolls are none of them the same width, but they grow wider as they get further from the point. Now we have all the shell except the open part. We know where this starts from, on the back of the shell, and it comes round to the dotted line at the other end. Now mark off with a straight line lightly drawn the distance it juts over the point, where the two outer lines meet, and also draw in the same way a straight line at the top. You now have four points to help you with the curve, and you can easily coax the line round until it goes just where you want it. Do not be satisfied, however, until you have got it quite right,

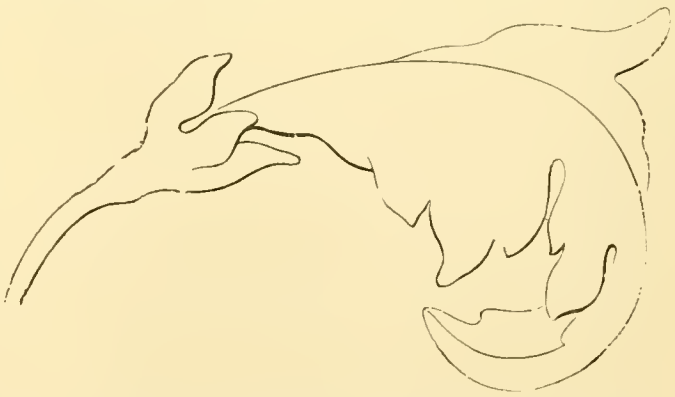
for all the trouble you spend upon it will not be lost, but you will find that every curved line of this kind that you draw will make other curved lines easier to you when you come to them.



OUTLINE OF FLOWER FOR PRACTISING CURVES.

There is not much more to be done to the shell but to put in a little of the marking, and this will all help to show the shape of the shell in bulging out towards you. These lines must be done carefully like the others, or they will give a wrong notion of the shape the shell takes.

Now, just as we did with the feather we may do with the shell, we may turn it in all sorts of different directions, and draw it so, until you begin to know all the lines of it by heart, turn it in what direction you will. In the meantime we may take another kind of shell, one of those that open like oysters. This looks easier, but I think you will find it a little more difficult; and we must try and go on, and when we can really do a thing properly, try what is a little harder, just like the man who began by carrying a little calf up a steep hill, and he practised this every day, but the calf all the while was growing bigger and bigger. He would not give up, however, and what he was able to do yesterday he was determined to do to-day, and, in fact, practice made it easier for him. He went on with this until the calf was quite grown up, and then he found he was able quite easily to carry a large ox up the hill. This is quite true of drawing and of a good many other things, even if it is



OUTLINE OF FLOWER FOR PRACTISING CURVES.

not quite true about carrying oxen. If you practise every day drawing some of the wonderful curves that you can see about you on every side if you look for them, you will find that in time you will have no difficulty in drawing any curve; only you must be patient, it will not come all at once; and you must take great pains to get every curve quite as it ought to be, and never be content to let a line remain because "it will do well enough." Nothing will do "well enough" that can be done better. Get a thing quite right once, and you will not have much difficulty in getting it right again, and the next line of the same kind that you have to draw will get into its right place somehow, so that you will not be able to make out how it was that you used to find so much trouble in putting it right before.

HOW A CLEVER ARTIST DREW A COMPLETE CIRCLE WITHOUT COMPASSES.

Once two artists were contending which was the best draughtsman. One of them took up a piece of chalk or charcoal, or some common thing of that kind, and just at one stroke, not a very quick one, I am sure, but with one quiet, steady stroke he drew a circle, and when they came to try it with the compasses it was so true no one could find any fault with it. The other could not do this, and was beaten. But how was it that the first one was able to do it? Do you think he was able to draw circles from the time he was a baby without any trouble? Nobody ever did that. No, he must have practised drawing circles, and many other lines of the same kind, till he could at once draw any line he liked.

I once saw a man draw circles in this way with a single stroke, and they were very accurate, not as accurate as an artist would want to have them, but quite as near as the man himself wanted to draw them, for he was not an artist, but a teacher of mathematics, and he was constantly drawing circles upon black-boards; he was a man who took pains with everything that he did, and so he succeeded even when he did not try very hard after success. Now, circles are not so useful to draw as many other curves, because the compasses will always make them more accurate than your hand alone; but draw all kinds of curves, and be sure to make them quite accurate before you leave them.

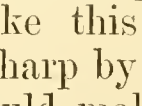
AN EASY LITTLE EXERCISE FOR LITTLE FINGERS AND VOICES.
[You should play this little exercise a great many times, and sing each note as you play it.]

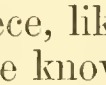
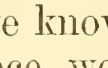
MUSIC AND SINGING.

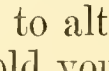
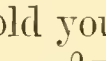
SHARPS, FLATS, AND NATURALS.

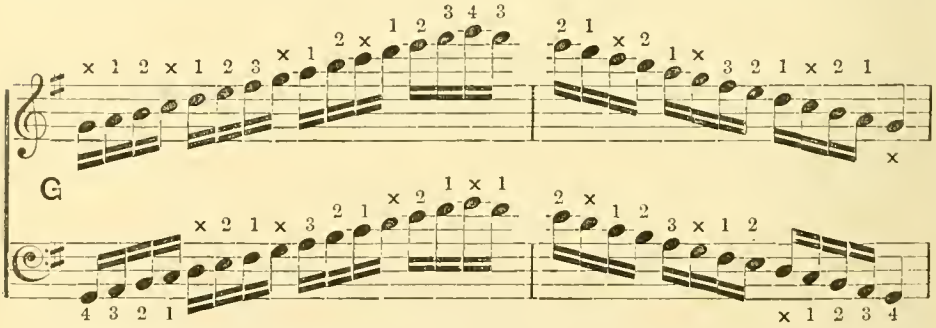
SIGNS OF SHARPS, FLATS, AND NATURALS.

YOU have already learned the scale of C, which is quite easy, because it contains no sharps or flats, and is played entirely upon the white birds. The next scale, which is called the scale of G, is a little more difficult; and before I go on to teach it to you I have something to say about sharps and flats. The black notes, as you know, are all sharps and flats, and they are represented in printed music by different signs.

The sign of the *sharp* is this ♯, and the sign of the *flat* is ♭. In playing a piece of music, you should always look quite at the beginning for the sharps and flats. Supposing you were going to play a piece of music in which every F was to be played as a sharp, we should put the sharp quite at the beginning of the piece, like this  and not take the trouble to put a sharp by the side of every F, because it would make the piece look far more difficult—untidy—and take up too much space.

So, too, if we played a piece where the B's were all flat, we should just put the flat at the beginning of the piece, like this  and there is an end of it; and we know that  every time B is printed in the piece, we just play the black note to the left of it.

But sometimes, after a sharp or flat has been printed at the beginning of a piece, it is found necessary to alter it back to a natural again. You know I told you the white birds were all naturals, so that if a has been printed at the beginning of a piece, and we wish to alter it back for once to the natural, we should use this sign ♮, and when we came to the B we wished to alter, it would look like this.  Try and remember all I have told you of  flats (♭♭), sharps (♯♯), and naturals (♮♮); now I will teach you the scale of G.



[You must be very careful with the fingering, just as you were in playing the scale of C, and you must play this scale over and over again until both hands run quite smoothly together, and you find it quite as easy to play as if it contained no little black bird.]

THE SCALE OF G.

The scale of G contains one sharp, which is F sharp; so that every time you come to F, you play the black note a little to the right of it, which

is its sharp. You will see the scale of G at the top of this chapter. You will notice F ♯ is just printed at the beginning, as I told you last time.

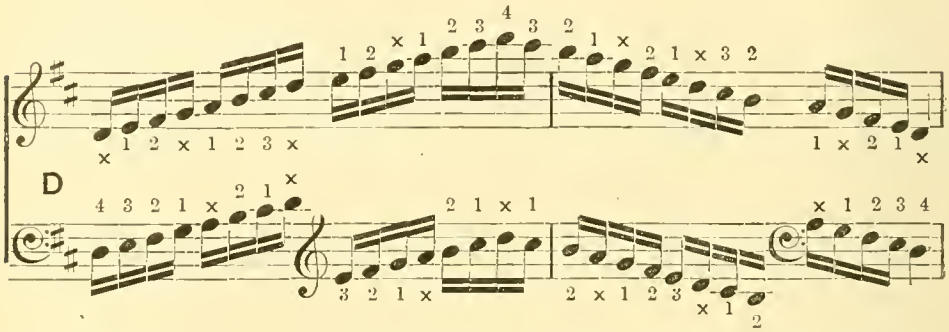
You will not be able to sing the whole of the scale of G. It begins too low down in the bass, and ends up perhaps a little too high in the treble, but you might sing most of the middle notes, take these for instance :—

Sing them a great many times, and sing the F sharp, as it is written. Sing F natural and then F sharp, and you will notice the difference at once. The sharp is, as its name suggests, brisker and sharper in tone than the natural. If, on the contrary, you sing G natural and then G flat—though G flat is represented by the same black bird as F sharp—coming as it does after G natural, it is lower and duller in tone than the white bird. The whole tone of a piano is brisker and brighter when travelling from left to right, or from bass to treble, than when coming *down* the other way, from treble to bass. This is easily explained, of course; for you know when travelling from the bass towards the treble, the birds' voices get higher —not louder—clearer, and more shrill in their song; while, when coming from treble to bass, they get duller, deeper, and altogether lower in tone.

THE SCALE OF D.

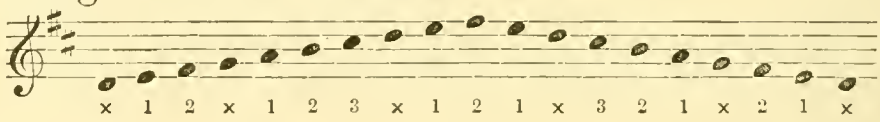
When you have quite finished learning the scale

of G, both to sing and to play, you may go on to the scale of D, which has two sharps, F and C. Here it is :—



Take just as much pains with the fingering as you did before in the other scales, and bring in the two little black birds quite smoothly.

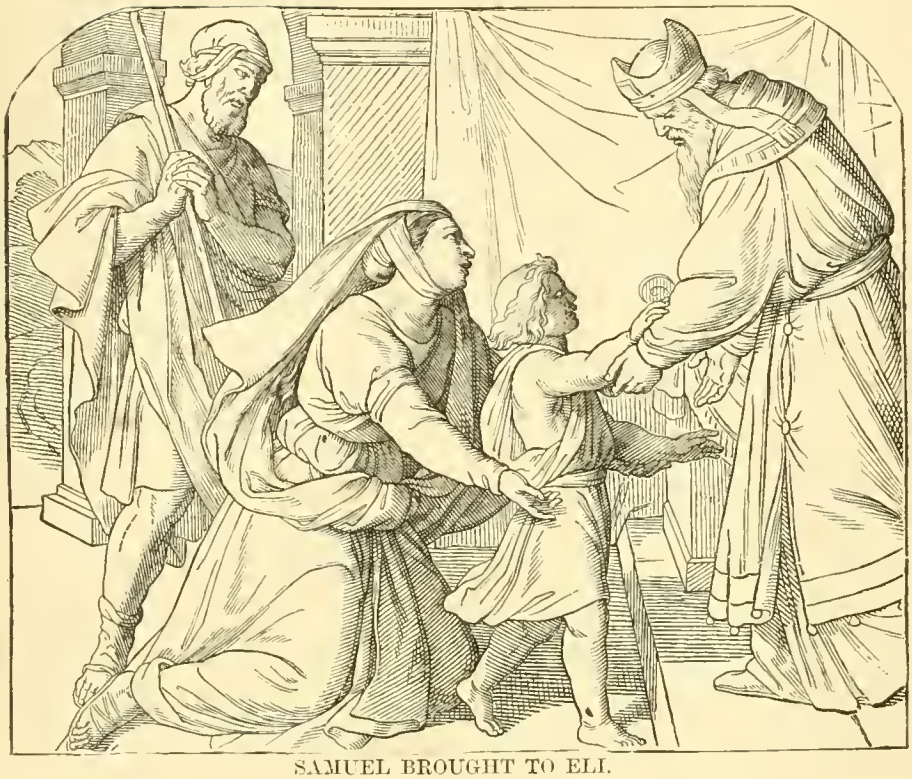
You might sing these notes, as you could not manage the whole scale :—



THE SCALE OF A.

The next scale is the scale of A. Here it is. It has, you see, three sharps—F, C, and G :—

Now I think these three scales will be quite enough for you to learn for this lesson. Good-bye, until next time.



SAMUEL BROUGHT TO ELI.

SCRIPTURE STORIES.

THE HISTORY OF SAMUEL.

ELI TELLING SAMUEL THAT GOD HAS CALLED HIM.

FOR a long time after the Israelites came to live in Canaan, as I told you in my last story, they were ruled by Judges, and in this chapter I have to tell you about one of these Judges when he was a little boy.

His name was Samuel, and his mother, who was called Hannah, was a very good woman. She and her husband, whose name was Elkanah, used to go up to a place called Shiloh once a year to pray and offer sacrifices to the Lord.

And when Samuel was old enough his mother brought him with her to Shiloh, and left him with Eli, who was the high priest of the Lord, and Eli brought him up as if he were his own son. Hannah used to come up to Shiloh and see her son once a year when she came to offer sacrifices to God; and she used to bring her son a little coat as a present. Samuel was a very good boy; he loved God, and was brought up to do service in the Temple.

GOD CALLS SAMUEL.

One night as Samuel lay asleep he heard a voice calling, "Samuel! Samuel!" So he jumped up and went to Eli, for he thought he had called him; but Eli said he had not called him. So Samuel returned and went to sleep again. He heard the voice again, so he ran to Eli, and said, "Here am I, for thou didst call me." But Eli said he had not called him at all, and told him to lie down again. And when the voice came the third time, Eli told Samuel it was the Lord who was calling him, and when he heard the voice again he was to say, "Speak, Lord, for thy servant heareth." And Samuel did as Eli had told him.

Now Eli had two wicked sons, named Hophni and Phineas, and it was about these two sons that God spoke to Samuel in the night. He told him that he would surely punish them for their wickedness, and that he was angry with Eli because he had not punished them as they had deserved.

When the morning came, Samuel told Eli what

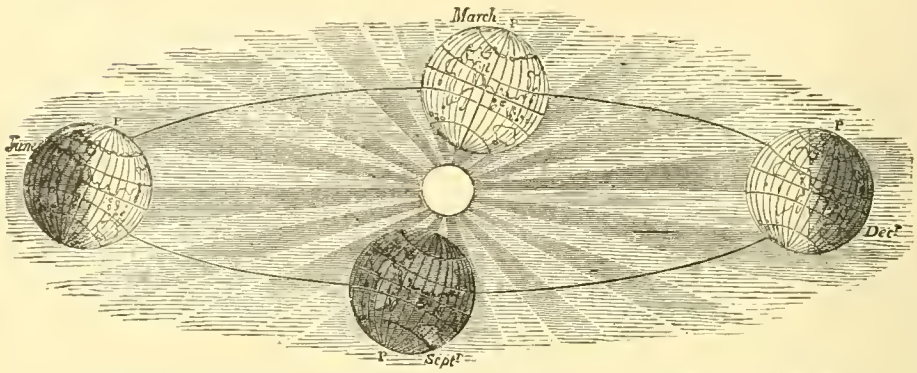
God had said to him, and Eli was very sorrowful. It came to pass just as the Lord had told Samuel, that Hophni and Phineas were slain in battle. When Eli heard the news he fell backwards by the side of a stone gate, and his neck brake, so that he died. Samuel grew up to be a prophet of the Lord, and was one of the best judges that the Israelites ever had.

I want you to remember the story of Samuel, and to know that God speaks to you too, for He says in the Bible, "My little son, or my little daughter, give Me thy heart," which means, "Try to love Me and do as I wish you to do, for then you will be happy." Will you not do as Samuel did—strive to do God's will?

THE STORY OF DAVID, AND HOW HE FOUGHT THE GIANT.

When Samuel became an old man there was a great war between the Israelites and some people called the Philistines. And every day a giant, named Goliath, came from the Philistines' camp and defied the Israelites, and they were all afraid of him. But one day, David, a shepherd boy, the son of Jesse, was in the camp of the Israelites, and he offered to go out and fight the giant.

So he took a sling and some smooth pebbles and ran to meet the giant; and the giant laughed when he saw him near, for he looked so young, but David slung one of the stones, and it hit the giant in the forehead, and killed him. Afterwards David was the king of the Israelites, and he was one of the best kings they ever had.



PICTURE EXPLAINING THE FOUR SEASONS OF SPRING, SUMMER, AUTUMN, WINTER.

[This picture shows us the earth going round the sun, which it does once every year. In going round the sun it alters its position, so that sometimes the sun shines more *directly* upon parts of the earth than it does at other times. You know that if you stand in front of a fire you feel it hotter than if you stand at the side, and it is just so with the earth and the sun.]

STORIES OF THE SUN, MOON, AND STARS.

IV.—SOMETHING MORE ABOUT THE SUN.

THE CORONAL ATMOSPHERE OF THE SUN AS SEEN DURING AN ECLIPSE.

LAST time I left off as I was telling you something about the curious spots which astronomers see on the sun, when they look at it through a telescope.

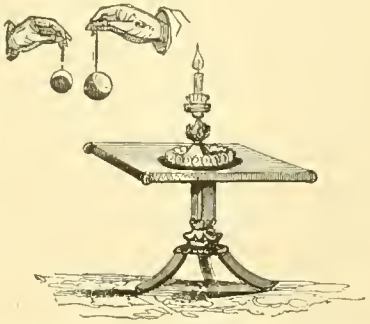
These spots change continually, and pass from east to west across the sun's surface; in a certain time they appear at the east again, and go over the same space as before. This proves that the sun turns round on its axis, like the orange does on the knitting-needle, and even as the earth turns on her axis. It is calculated that he revolves once in 25 of our days.

When the sun is eclipsed, that is, when the moon comes between us and the sun (I showed you a picture of this in the last chapter), astronomers have been able to see that there is a luminous vapour extending round the sun for an immense distance, and that there are a number of red prominences, or bright-coloured flames or vapours, shooting out from this

vapour. This light is called the "coronal atmosphere," sometimes the "sierra," and sometimes the "chromosphere." The light of the prominences is very great, and they often rise to the height of 100,000 miles, and then bending back fall into the sun like lovely fountain-jets of light. Sometimes they take fantastic shapes, like trees.

Roughly speaking, we may say that the sun, therefore, would appear to consist of three parts. There is the envelope of light, or flame, called the chromosphere; there is the bright surface on it, in which are the sun-spots, called the photosphere; and those dark rents would seem to point to a dark nucleus within; while in addition to these three parts, there are the red prominences shooting up from the chromosphere.

WHAT CAUSES NIGHT AND DAY, AND SUMMER AND WINTER.

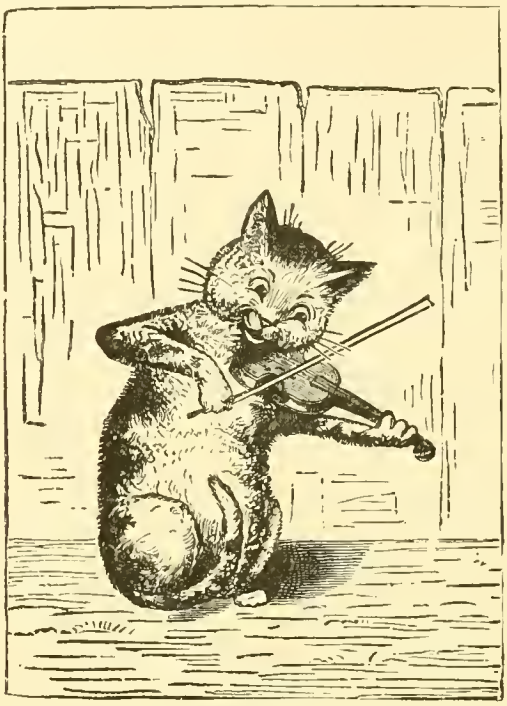


PICTURE EXPLAINING THE CAUSE OF NIGHT AND DAY, AND THE SHINING OF THE MOON AT NIGHT.

You can see that if the earth keeps on turning round, as I have told you it does, the sun cannot always shine on the same part of it, so that there is always a part which is dark and a part which is light, and this is just what happens.

If you took a candle or lamp and placed it on a table in a dark room and then held a ball a little way off, you would find that the light would fall on *part* of the ball, while the other part was quite dark. This is just what happens with the earth. And then, if you turned the ball round, you would find that the dark part gradually came round into the light. Now, as the earth turns round once in every twenty-four hours, you see we have a day and a night in the same period. Here is a picture which may help you to understand this. The second ball represents the moon shining as we see it sometimes at night.

Does the sun shine by its own light?
How far is the sun away from us?
What would happen to this earth if the sun ceased to shine?
Does the sun go round the earth, or does the earth go round the sun?
Are there any spots on the sun's surface?
What are these spots supposed to be?
How long does the sun take to turn on its axis?
Can you tell me how an eclipse of the sun is caused?
Tell me how day and night are caused, and also summer and winter.



WHAT A FUNNY CAT! IT SEEMS VERY PLEASED WITH THE FIDDLE.

[In this sentence *funny* is an adjective, because it tells us something about the cat; and *it* is a PROLOUN, because it is used in place of the word *cat*.]

GRAMMAR.

IV.—ADJECTIVES AND PRONOUNS.

A PRETTY LITTLE GIRL.

[In this phrase, *pretty* and *little* are both adjectives, because they tell us something about the girl,—that she is both pretty and little.]

WE have now finished with Nouns and Articles, for a little while, at least; so I will go on to tell you about the next of the nine parts of speech. This is called the *Adjective*. An Adjective is a word which tells us something about a noun. For instance, if you say, "My sister is pretty," the word *pretty* is an adjective, because it tells us something about the word sister.

An adjective, therefore, is a word added to a noun in order to tell us something about it; in other words, it *qualifies* a noun.

Such words as *pretty*, *good*, *old*, *young*, *tall*, *clever*, *thin*, *fat*, are all adjectives, because they express some quality either of

the person or character. Thus in the phrase, "A good child," *a* is an indefinite article; and *good* is an adjective, because it tells us something about the noun, *child*: and *child* is a common noun, common gender, singular number. Again, in the phrase, "The brave boy," *the* is the definite article; *brave* is an adjective, because it tells us what sort of boy he is—he is a brave boy; and *boy* is a common noun, masculine gender, single number.

Now I hope you quite understand what an adjective is; and if you will remember the meaning of the word, namely, that it

THIS LITTLE GIRL HAS ON A PRETTY HAT AND A NICE DRESS, AND LIKES TO LIE ON THE FRESH, GREEN GRASS.

[In this sentence, the word *little* is an adjective, telling us something about the noun, girl; *pretty* is an adjective telling us something about the noun hat; *nice* is an adjective telling us something about the dress; and *fresh* and *green* are adjectives telling us something about the noun *grass*.]

means a word *added to* another word—a noun—to tell us something about it, I think you will very easily be able to pick out the adjective in a sentence. Now let us see what a Pronoun is.

WHAT IS A PRONOUN?

A Pronoun is a word used *instead* of a noun. That is, in fact, what the word means. Just as adjective means *something added to*, pronoun means *for* a noun. Thus, if you want to speak of your sister, you would perhaps say, "Kate is out"; but if your sister's name occurred more than once in a sentence, you would not say, "Kate is out, Kate will be home at six o'clock." You would say, "Kate is out, *she* will be home at six o'clock." Here the word *she* is used instead of the noun *Kate*, therefore it is a pronoun. Again, in the sentence "Tom has lost his ball, *he* is very sorry," the word *he* is used instead of the noun *Tom*. Words such as *she*, *it*, *I*, *we*, *you*,

are all pronouns. I remember when I was very little, I learned the following couplet about a pronoun, and I have not forgotten it. It was this :—

A pronoun is a word used instead of a noun,
As—Tom was tired, and he *sat down.*

Now, you must also learn, that pronouns have gender and number just like nouns. *He*, the pronoun, is, of course, of the masculine gender and singular number, because *he* is used instead of the noun, *boy*, *man*, &c. *She* is a pronoun of the feminine gender, singular number, because *she* is used instead of *woman*, or *girl*, &c. *It* is a pronoun of the neuter gender, singular number, because *it* is used instead of things without life, such as *box*, *top*, &c.

Now try to find out the pronouns in the following sentences:—The dog barks, he is very noisy. Jack has gone to bed, he is ill. Mary has two kittens, they are very pretty. Jane is very busy, she is learning her lessons.

DIFFERENT KINDS OF PRONOUNS.

There are four kinds of pronouns—*first*, Personal pronouns; *second*, Relative pronouns; *third*, Demonstrative pronouns; and *fourth*, Indefinite pronouns.

Personal pronouns are those which stand in the place of persons, as *I*, *thou*, *he*, *she*, *it*, *we*, *you*, *they*, *me*, *thee*, *him*, &c.

There are only five Relative pronouns, so you can easily remember them. They are *who*, *whose*, *whom*, *which*, and *that*. They are called relative because they relate to some noun or pronoun which has preceded it, thus: the man *who* came here last night is a native of New York. Here, *who* is the relative pronoun.

The Demonstrative pronouns are so called because they more particularly mark or point out the nouns before which they are placed, thus—*this* man is going to London. There are five also of these pronouns. They are *this*, *these* (plural of this), *that*, *those* (plural of that), and *what*.

The Indefinite pronouns are those which do not express their objects in a very definite manner—such as *one*, *any*, *none*, *some*, &c., &c. Some persons call them adjectives, and it is only when they are used alone, instead of without nouns, that we may call them pronouns.

PLAYING AT HORSES.

[When you have been playing for several hours you feel tired, and must rest; you are hungry and must eat, and perhaps you are thirsty and want to drink. Hunger, thirst, and fatigue are feelings which tell us of the wants of our bodies, and these wants must be supplied.]

SOMETHING ABOUT MY OWN LITTLE BODY.

II.—HOW THE BODY IS REPAIRED AND RESTED.

THE FOOD AND DRINK WE TAKE, REPAIR AND BUILD UP THE BODY.

IN your body there are several pounds' weight of solid material, such as bones, &c., and also many more pounds' weight of water. Indeed, water forms a most important part of our bodies, making, in fact, more than one-half of our whole weight. This water exists in our blood, and various other liquids and solids, and the waste of it must be regularly made up.

When men have been for a few days without it, they have sometimes had so great a craving for water that they would drink anything, and shipwrecked sailors have even drunk the salt water of the ocean, and have then gone mad. Thirst, then, is the feeling one has when the waste of water in the body wants making up. But the solids also waste, so that if a man were supplied with nothing but water he would begin to grow thin, so thin, until his bones would appear to stick out, his skin

would look drawn, and at last he would die. The solids of the body have to be kept up by means of food, like roast beef, bread and butter, and other things. To replace the wasted solids of the body, food is taken into the mouth. In the mouth the food is ground up by the teeth, and mixed with saliva or spittle; then it is passed into the stomach, and mixed with other liquids which come out of the coats of the stomach; finally it passes into the long tubes called the intestines. On its way through the intestines some parts of it pass into the body to form new blood. In this way hunger is satisfied. Hunger, then is the feeling which tells us that the solids of the body want an addition to make up what has been wasted by wear and tear. How is the addition made?

ABOUT THE "FIRE" IN THE BODY, AND WHAT IT DOES FOR US.

Inside the body there is a wonderful pump called the *heart:* it pumps blood to every part of the body. On pressing a hand just below the breast, and a little to the left, you can feel the beatings of this blood-pump. As fresh blood is carried to a muscle, it makes the required addition to it, and the blood which returns brings away the waste. This waste is got rid of by burning, and the burning is carried on for the most part in the lungs. "But," the youthful reader exclaims, "there is no fire in my breast!" Well, there is no fire like the house fire, all ablaze, and giving out flame. This fire in the body is a very slow one, and would not be hot enough to boil an egg; in fact, it is only just hot enough to keep the body warm, and this it does in a wonderful and perfectly regular manner. Every time one takes in a breath of air, oxygen is carried to the lungs, and there it is joined to the waste—in fact, burns it up, forming carbonic acid, which is sent forth when we breathe out. Now the fire in the grate would be smothered if no air were allowed to get to it, because the oxygen in the air is necessary to its burning. And so, in the same way, the body would be smothered if it were deprived of air.

A fearful example of this happened in India more than a hundred years ago, when Calcutta was taken by Rajah al Dowlah in 1756. One hundred and forty-six Englishmen were thrust into a small dungeon, usually called the Black Hole of Calcutta. This dungeon into which all these men

were thrust was only eighteen feet square, and the only air that could get into it came through two small gratings, almost entirely blocked up by the neighbouring buildings. Here these men had to spend the whole night. When the door was opened on the following morning, only twenty-three were found alive out of the hundred and forty-six that had been thrust in the night before. In breathing they had soon robbed the air of all its oxygen, and when they could obtain no more, the fires within them went out—they died.

Hence, you will understand the very great importance of fresh air where a great number of people are collected together. In places used for meetings there ought to be a proper arrangement for bringing in fresh air and taking away the carbonic acid. This can generally be done by a good means of ventilation.

SOMETHING ABOUT THE BRAIN, AND WHAT IT DOES.

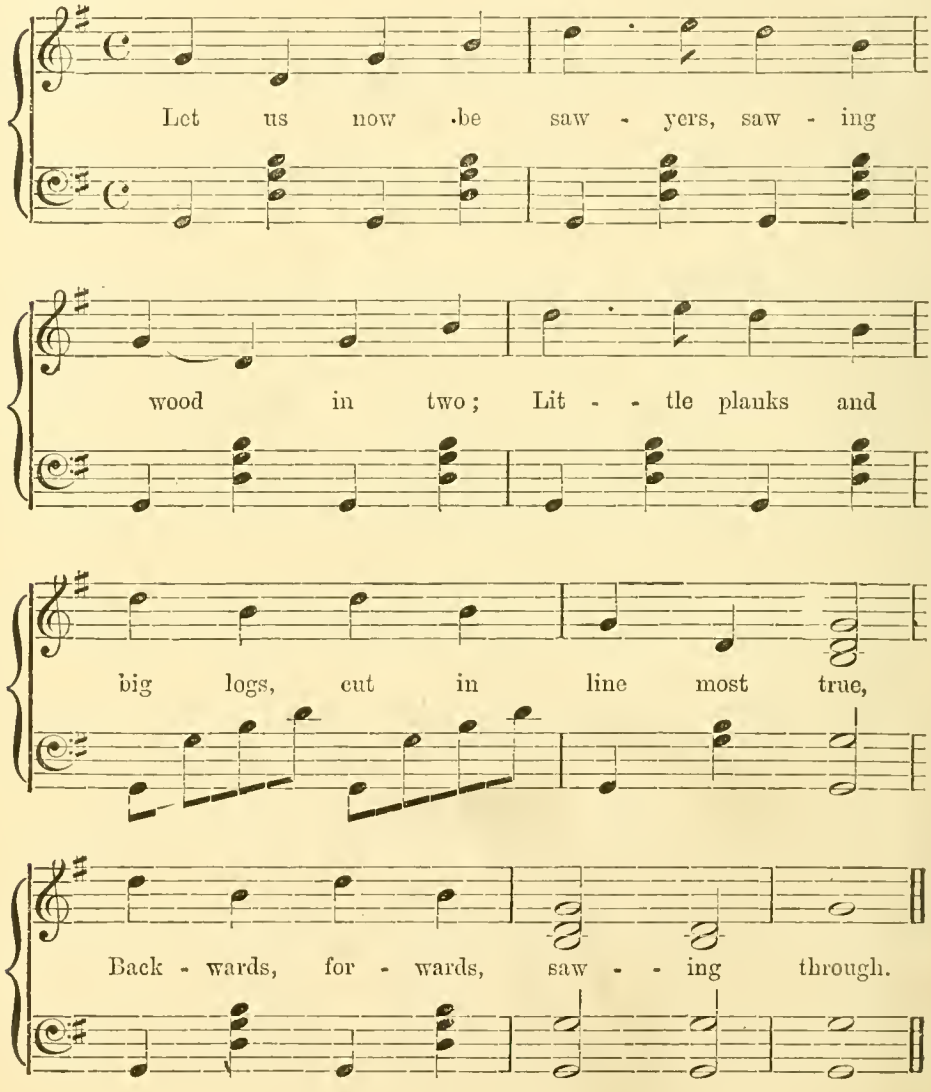
And now we come to the question of fatigue. You already know that in the skull, or bony box of the head, there is the brain. When the brain becomes tired it is rested by means of sleep. But what makes it tired? In other words, what does the brain do? The brain is in command of the whole body, so that it says to one limb, "Do this," and it does it; and to another, "Do that," and it attends to it. From it there is a big white cord, or nerve, extending right down the middle of the back-bone, and branches from this spread out to different parts of the body. It is through these nerves that messages are sent. Upon taking a particular look at the brain it is seen to be very curiously moulded, and its outside looks very much like a lot of sausages that have been squeezed into a round mould. It has been found out of recent years that each part of the brain takes command of some particular part of the body. Thus, the upper part of one of these sausage-like portions, or *convolutions*, orders the movements of the arm and hand.

Hence, it so happens that when a part of the brain is injured, a part of the body usually loses its power along with it. This shows, then, that the brain regulates our limbs; it is busy all day, tired at night, and in sleep finds rest.

KINDERGARTEN GAMES AND SONGS.

IX.—THE SAWYER.

TWO lines are formed, facing each other. Each child joins hands with its opposite neighbour, and then all imitate the motions of sawyers, swaying to and fro with the music.


Let us now be saw - yers, saw - ing
wood in two; Lit - - tle planks and
big logs, cut in line most true,
Back - wards, for - wards, saw - - ing through.

WINDSOR CASTLE, SEEN FROM THE RIVER THAMES.

[For many hundreds of years the kings and queens of England have had a residence at Windsor. William the Conqueror began to build the castle, and before this there was a royal palace at Old Windsor. Edward III. added largely to the castle, and other sovereigns have since made many improvements. Between 1824 and 1828 extensive additions and restorations were made. You must go to Windsor some day, and you will be delighted with the visit.]

THE KINGS AND QUEENS OF ENGLAND.

[There were 20 Kings before the time of the Norman Conquest; of these 15 were Early Saxon Kings, 3 were Danish Kings, and 2 were Later Saxon Kings.]

1. EGBERT,

First King of All England.

Be-fore the reign of Eg-bert, Eng-land was split up in-to a num-ber of lit-tle king-doms. First of all there were the tribes of the An-cient Brit-ons, and each tribe had its own chief or king. Then the Ro-mans came and stay-ed for nearly five hun-dred years. When they went a-way the Sax-ons came, and Eng-land was split up a-gain in-to several king-doms. There were seven of these, and they are known as the Sax-on Hep-tar-chy. But at last, in the year 827, one king named Eg-bert con-quer-ed the others, and be-came king of the whole of the ter-ri-tor-ies south of the riv-er Tweed, so he is spoken of as the first king of the whole of Eng-land. He died in 836.

2. ETHELWULF,

Eldest Son of Egbert.

Eth-el-wulf was a good king. He was a ve-ry re-li-gi-ous man, and had been a monk. He made a pil-grim-age to Rome, and set a-part every Wednes-day for pray-er a-gainst the Danes; these were a sav-age peo-ple, who used to land on the shores of Eng-land and kill the peo-ple, and take off their goods. Eth-el-wulf died in 857.

3. ETHELBALD,

Son of Ethelwulf.

Eth-el-bald was only king for three years, and no-thing of any great im-por-tance hap-pen-ed in his reign.

[*Continued on page* 388.

REIGNED 21 YEARS.

1066 TO 1087

BORN 1027

DIED 1087

WILLIAM I., THE CONQUEROR.

CONQUERED ENGLAND.

REIGNED 13 YEARS.

1087 TO 1100

BORN 1057

DIED 1100

WILLIAM II., RUFUS.

KILLED WHILE HUNTING IN THE NEW FOREST.

REIGNED 35 YEARS.

1100 TO 1135

BORN 1070

DIED 1135

HENRY I., BEAUCLERC.

DIED FROM EATING TOO MANY LAMPREYS.

REIGNED 19 YEARS.

1135 TO 1154

BORN 1105

DIED 1154

STEPHEN, EARL OF BLOIS.

FOUGHT IN MANY SAD CIVIL WARS.

REIGNED 35 YEARS.

1154 TO 1189

BORN 1133

DIED 1189

HENRY II., PLANTAGENET.

BECAME LORD OF IRELAND.

REIGNED 10 YEARS.

1189 TO 1199

BORN 1157

DIED 1199

RICHARD I., CŒUR-DE-LION.

FOUGHT IN THE THIRD CRUSADE.

REIGNED 17 YEARS.

1199 TO 1216

BORN 1166 DIED 1216

JOHN, LACKLAND.

SIGNED MAGNA CHARTA.

REIGNED 56 YEARS.

1216 TO 1272

BORN 1207 DIED 1272

HENRY III.

PROVOKED A CIVIL WAR.

REIGNED 35 YEARS.

1272 TO 1307

BORN 1239 DIED 1307

EDWARD I., LONGSHANKS.

CONQUERED THE WELSH.

REIGNED 20 YEARS.

1307 TO 1327

BORN 1284 DIED 1327

EDWARD II., CAERNARVON.

CRUELLY MURDERED IN BERKELEY CASTLE.

REIGNED 50 YEARS.

1327 TO 1377

BORN 1312 DIED 1377

EDWARD III.

WON THE GREAT BATTLES OF CRECY AND POICTIERS.

REIGNED 22 YEARS.

1377 TO 1399

BORN 1367 DIED 1400

RICHARD II., BORDEAUX.

DEPOSED AND IMPRISONED BY HIS COUSIN HENRY IV.

4. ETHELBERT,

Brother of Ethelbald.

This king was al-so the son of Eth-el-wulf. He only reign-ed for six years, but du-ring this time the Danes in-va-ded the Isle of Than-et, and did much dam-age. He died in 866.

5. ETHELRED THE FIRST,

Brother of Ethelbert.

Eth-el-red was the third son of Eth-el-wulf, and in his reign the Danes were very trou-ble-some. Eth-el-red fought sev-e-ral bat-tles with them, and in the last bat-tle he was wound-ed so bad-ly that he died. In his reign there was a great fam-ine and pes-ti-lence; he died in 871, hav-ing reign-ed five years.

6. ALFRED THE GREAT,

Brother of Ethelred.

Al-fred was one of the best kings Eng-land ever had. He fought a-gainst the Danes, and con-quer-ed them. He built man-y ships, and was the first king of Eng-land who had good ships of his own. He al-so made man-y ve-ry good laws, and pun-ish-ed peo-ple who did wrong. He died in 901, af-ter hav-ing reign-ed thir-ty years.

7. EDWARD THE ELDER,

Son of Alfred the Great.

When Al-fred was dead, the Danes came a-gain, for they thought they could con-quer the Eng-lish, now they had lost their great lead-er. But they were mis-ta-ken, for Ed-ward was a wise and brave king, and he beat them. Ed-ward reign-ed for twen-ty-four years, from 901 to 925.

8. ATHELSTAN,

Son of Edward the Elder.

This king was al-so wise and brave. He made a law that ev-e-ry man who built a ship, and went to sea three times, should be a *Thane*, that is, a no-ble. He also placed in ev-e-ry church a copy of the Ang-lo-Sax-on Bi-ble, which he had caused to be trans-la-ted. In those days Bi-bles were very dear and very rare, for peo-ple had to write them by hand; there was no such thing as print-ing. Ath-el-stan died at Glou-ces-ter, 941.

9. EDMUND THE FIRST,

Son of Edward the Elder.

This king was a bro-ther of Ath-el-stan, and he be-gan his reign ve-ry well. He fought a-gainst the Danes, and con-quer-ed them, and the peo-ple hoped that he would be king as long as Al-fred was, and that they would be as hap-py un-der his rule. But a wick-ed man named Le-olf, whom he had pun-ished for rob-ber-y, stab-bed him when he had been king for near-ly six years. This was in 946.

10. EDRED,

Brother of Edmund.

At Ed-mund's death, Ed-red was made king by the Great Coun-cil, but he was near-ly al-ways ill, and he was not brave or wise; he could not man-age the af-fairs of the na-tion well. He reign-ed for nine years, and died at Win-ches-ter in 955.

11. EDWY THE FAIR,

Son of Edmund.

This king quar-rell-ed with Dun-stan, a bish-op, who had great power, and Dun-stan's friends stirred up some of his peo-ple a-gainst him, and took a-way part of his king-dom, and gave it to Ed-gar, his bro-ther. He died soon af-ter this, in 959.

12. EDGAR the PEACEABLE,

Brother of Edwy.

Ed-gar tried hard to gov-ern well. He fa-vour-ed Dun-stan, and made him Arch-bish-op of Can-ter-bur-y. At that time there were man-y wolves and wild an-i-mals in the fo-rests, and

in or-der to get rid of them, he per-mit-ted the Welsh to pay him a tri-bute of the heads of these wild beasts, in-stead of mo-ney, un-til, in a-bout four years' time, there were very few, if any, wolves left. There was so lit-tle fight-ing in his reign that he was called the Peace-a-ble. He died in 975.

13. EDWARD THE MARTYR,

Son of Edgar.

At Ed-gar's death, his eld-est son, Ed-ward, be-came king. But El-fri-da, Ed-gar's se-cond wife, want-ed her own son to be king in-stead. So one day, when Ed-ward was re-turn-ing to his step-mo-ther's house, which was cal-led Cor-fe Cas-tle, in Dor-set-shire, she caused him to be stab-bed by one of her ser-vants while he was drink-ing a cup of mead, which she her-self had giv-en him. For this rea-son he has been cal-led "The Mar-tyr."

14. ETHELRED II.,

Half-brother of Edward the Martyr.

The son of the wick-ed queen El-fri-da was made king at his half-bro-ther's death, but he was a fool-ish fel-low, and he was cal-led "The Un-read-y," be-cause he was ne-ver read-y with his ships or his sol-diers, and the Danes gained vic-tor-y af-ter vic-tor-y over him. For sev-e-ral years there was a great deal of fight-ing, and at one time Eth-el-red was o-bliged to fly to Nor-mand-y, and a Dan-ish chief-tain named Sweyn was pro-claim-ed King of Eng-land. But the Eng-lish re-call-ed Eth-el-red, and drove the Danes a-way a-gain. Eth-el-red died in 1017.

15. EDMUND II., IRONSIDE,

Son of Ethelred the Unready.

When Eth-el-red died the Eng-lish hoped that his son Ed-mund, who was a wise and brave prince, would free them from the Danes, and for sev-en months he strug-gled brave-ly a-gainst them, but in a ver-y short time (with-in a year) he died, and then the Danes drove a-way all the o-ther prin-ces, and made one of their own prin-ces king of Eng-land.

16. CANUTE,

Son of Sweyn, King of Denmark.

Can-ute was a wise and good king. He kept his Dan-ish sub-jects from do-ing any more mis-chief in Eng-land, and tried to ben-e-fit the peo-ple by ma-king good laws. One day, when he was on the sea-shore, and some fool-ish and wick-ed peo-ple were tell-ing him he could do ev-er-y-thing he chose, and that e-ven the sea would o-bey him, he or-der-ed a chair to be brought, and pla-cing it near the wa-ter, he or-der-ed the wa-ter not to come up to him and wet his feet. But of course the tide still ran in, and pre-sent-ly it came to his chair. Then he said, "Learn from this, that God a-lone is pow-er-ful e-nough to con-trol the sea, and any earth-ly be-ing is weak in-deed when com-par-ed with Him." And those fool-ish men were great-ly a-shamed of them-selves. Can-ute was king over Eng-land for 19 years. He died in 1036.

17. HAROLD I., HAREFOOT,

Son of Canute.

Har-old, sur-named Hare-foot, was made king when his fath-er, Can-ute, died, but he was neith-er so wise nor so good as his fath-er. He only reigned three years, for he died at Oxford in 1039.

18. HARDICANUTE,

Son of Canute.

Har-di-can-ute, or Can-ute the Hardy, who was an-oth-er son of Can-ute, be-came king at his broth-er's death. He caused great dis-con-tent a-mong the peo-ple, be-cause he made them pay some heavy tax-es. Har-di-can-ute only reigned two years. He died in 1041.

[*Continued on page* 392.

REIGNED 14 YEARS.

1399 TO 1413

BORN 1367 DIED 1413

HENRY IV., BOLINGBROKE.

PERSECUTED THE LOLLARDS.

REIGNED 9 YEARS.

1413 TO 1422

BORN 1388 DIED 1422

HENRY V., MONMOUTH.

WON THE GREAT BATTLE OF AGINCOURT.

REIGNED 39 YEARS.

1422 TO 1461

BORN 1421 DIED 1471

HENRY VI., WINDSOR.

DETHRONED DURING THE WARS OF THE ROSES.

REIGNED 22 YEARS.

1461 TO 1483

BORN 1443 DIED 1483

EDWARD IV., YORK.

WON MANY BATTLES DURING THE WARS OF THE ROSES.

REIGNED 11 WEEKS.

1483 (April 9th to June 25th) 1483

BORN 1471 DIED 1483

EDWARD V.

MURDERED IN THE TOWER.

REIGNED 2 YEARS.

1483 TO 1485

BORN 1452 DIED 1485

RICHARD III., CROOKBACK.

KILLED AT THE BATTLE OF BOSWORTH FIELD.

REIGNED 24 YEARS.

1485 TO 1509

BORN 1455 DIED 1509

HENRY VII., TUDOR.

DISCOVERY OF AMERICA TOOK PLACE IN THIS REIGN.

REIGNED 38 YEARS.

1509 TO 1547

BORN 1491 DIED 1547

HENRY VIII.

MARRIED SIX WIVES.

REIGNED 6 YEARS.

1547 TO 1553

BORN 1537 DIED 1553

EDWARD VI.

THE ENGLISH REFORMATION COMPLETED.

REIGNED 5 YEARS.

1553 TO 1558

BORN 1516 DIED 1558

MARY I.

PERSECUTED THE PROTESTANTS.

REIGNED 45 YEARS.

1558 TO 1603

BORN 1533 DIED 1603

ELIZABETH.

THE SPANISH ARMADA DEFEATED IN THIS REIGN.

REIGNED 22 YEARS.

1603 TO 1625

BORN 1566 DIED 1625

JAMES I., STUART.

GUNPOWDER PLOT DISCOVERED.

19. EDWARD THE CONFESSOR,

Son of Ethelred the Unready.

While these three Dan-ish kings had been reign-ing, Ed-ward, a son of E-thel-red the Un-read-y, had been liv-ing in France, and when Har-di-can-ute died Ed-ward was made king. The peo-ple were glad to have a de-scen-dant of their great king Al-fred to rule over them, but Ed-ward was not a wise king. He was called "The Con-fes-sor," be-cause he spent near-ly all his time in re-peat-ing pray-ers and watch-ing men build churches when he ought to have been at-tend-ing to the affairs of the king-dom. Now it is most ne-ces-sar-y and right for us to pray, but God has giv-en us all work to do and du-ties to per-form, and there is plen-ty of time for us to work and pray both. But Ed-ward did not do his work, and the con-se-quence was that other peo-ple, who had no right to do so, go-vern-ed the coun-try. And he brought a great man-y Nor-mans over to Eng-land, and when they saw what a nice coun-try it was, they want-ed to make it their own coun-try, and it is said they got him to prom-ise that they should have it, and that Wil-liam, Duke of Nor-man-dy, should be king. This was, of course, very wrong, but Wil-liam did have Eng-land, as you will hear. Ed-ward died in 1066, af-ter be-ing king for 25 years.

20. HAROLD II.,

Son of Earl Godwin.

The Great Coun-cil made a very brave and good man king at the death of Ed-ward. This was Har-old, Earl of Wes-sex. But he reigned for only a ver-y short time. The Nor-we-gi-ans land-ed in the North of Eng-land, and Har-old had to march has-ti-ly to fight a-gainst them, and when he had beat-en them he had to march has-ti-ly to the south a-gain, for Wil-liam, Duke of Nor-man-dy, had land-ed near Has-tings with a large arm-y. Here a ter-ri-ble bat-tle was fought, in which brave Har-old was killed, and the Normans were vic-tor-i-ous. So then Wil-liam made him-self king.

AFTER THE NORMAN CONQUEST.

[Thirty-six Kings and Queens have reigned since the Norman Conquest; of these 4 were Norman Kings, 8 Plantagenets, 3 Lancastrians, 3 Kings of the House of York, 5 Tudor Kings and Queens, 6 Stuart Kings, and 1 Lord Protector (Cromwell), and 6 Kings and Queen of the Guelph Line, or House of Hanover.]

1. WILLIAM I., CONQUEROR,

Son of Robert, Duke of Normandy.

Wil-liam I. be-gan to reign in the year 1066. He was a ve-ry tall and strong man, and it is said that no one but him-self could bend his bow. He caus-ed a great book, cal-led the Domes-day Book, to be writ-ten, in which was put down all the towns and vil-la-ges in Eng-land, and the num-ber of the hous-es and peo-ple there were in them. He al-so made a great for-est in Hamp-shire, which is still cal-led the New For-est; and he made a law that at eight o'clock ev-er-y night the church-bell should ring, and that the peo-ple should put out their can-dles and fires at the ring-ing of this bell. This was cal-led the Cur-few Bell. He was a cru-el and ty-ran-ni-cal king. He died in the year 1087.

2. WILLIAM II., RUFUS,

Son of William I.

Wil-liam II. was cal-led Ru-fus be-cause he had red hair. He was a very fierce and cru-el man, and he was kill-ed when hunt-ing in the New For-est, in the year 1100.

3. HENRY I., BEAUCLERC,

Son of William I.

The next king was bro-ther to Wil-liam Ru-fus, and he was made king be-cause Wil-liam II. had no son. He had a great love of learn-ing, for which he was call-ed BEAU-CLERC, which means "fine scho-lar." He died in 1135 from eat-ing too many lam-preys.

4. STEPHEN,

Grandson of William I.

Ste-phen was a brave man, but his reign was near-ly all tak-en up in fight-ing, and the peo-ple suf-fer-ed very much. Some per-sons thought Maud, the daugh-ter of Hen-ry I., should be queen, and so there was con-tin-u-al civ-il war be-tween the friends of Ste-phen and the friends of Maud. Ste-phen was king nine-teen years, and for fif-teen years this fight-ing was go-ing on. He died in 1154.

5. HENRY II., PLANTA-GENET,

Grandson of Henry I.

Hen-ry II. was, on the whole, a good king for Eng-land, for he was both just and gen-er-ous. But his an-ger was at times very vi-o-lent, and he could not rule his sons well; they be-ha-ved ver-y bad-ly to him. He died on the 6th of Ju-ly, 1189.

6. RICHARD I., CŒUR-DE-LION,

Son of Henry II.

This king was a ver-y brave man, and so da-ring was he, that the peo-ple cal-led him CŒUR-DE-LION, which means "lion-hearted." He was a very hand-some man, but ex-cept that he was brave, he was not at all a good man, for he was oc-cu-pi-ed near-ly all the time fight-ing in for-eign lands. His death was caused by an ar-row which wound-ed him at the siege of Chaluz in 1199.

7. JOHN, LACKLAND,

Son of Henry II.

John was very dif-fer-ent from his bro-ther Rich-ard, for he was cow-ard-ly and cru-el. Yet his reign will be ev-er fa-mous for the sign-ing of Mag-na Char-ta, which grants many rights and lib-er-ties to the peo-ple of Eng-land. The peo-ple forced John to sign this Char-ter in the year 1215, at Run-ny-mead, near Wind-sor, and a-bout a year af-ter, on the 19th of Oc-to-ber, 1216, he died at New-ark.

8. HENRY III.,

Son of John.

Hen-ry was on-ly ten years old when he be-came king, and he reign-ed for over fif-ty-six years. His reign was not a very hap-py one, and there were sev-er-al civ-il wars. Hen-ry was a weak and fool-ish man, and so very ex-tra-va-gant, that many of the peo-ple re-bel-led against him; but he was not cru-el and faith-less, like his fath-er.

9. EDWARD I., LONG-SHANKS,

Son of Henry III.

Ed-ward was a very good king, for he was as brave as Rich-ard the Lion-heart-ed, and as wise as Henry II. He was very tall, and his legs were very long, so he was call-ed LONG-SHANKS. He died at Burgh-on-Sands, on the 7th July, 1307, af-ter a reign of more than 35 years.

10. EDWARD II.,

Son of Edward I.

Ed-ward II. was as hand-some a man as his fa-ther, Ed-ward I., but he was neith-er wise nor brave. He did not care for the good of Eng-land, he was-ted his time and money, and he mar-ried a bad wife. This un-hap-py king was de-pos-ed in 1327, and soon af-ter was bar-bar-ous-ly mur-der-ed in Berk-e-ley Cas-tle in Oc-to-ber of the same year.

[*Continued on page* 396.

REIGNED 24 YEARS.

1625 TO 1649

BORN 1600

DIED 1649

CHARLES I.

LEVIED MANY ILLEGAL TAXES.

PROTECTOR 5 YEARS.

1653 TO 1658

BORN 1599

DIED 1658

OLIVER CROMWELL.

GOVERNED ENGLAND DURING THE COMMONWEALTH.

REIGNED 25 YEARS.

1660 TO 1685

BORN 1630

DIED 1685

CHARLES II.

THE GREAT PLAGUE OF LONDON TOOK PLACE, 1665.

REIGNED 3 YEARS.

1685 TO 1688

BORN 1633

DIED 1701

JAMES II.

WAS DETHRONED IN FAVOUR OF WILLIAM AND MARY.

REIGNED 14 YEARS.

1688 TO 1702

BORN 1650

DIED 1702

WILLIAM III.

MARRIED KING JAMES'S DAUGHTER MARY.

REIGNED 12 YEARS.

1702 TO 1714

BORN 1664

DIED 1714

ANNE.

UNION OF ENGLAND AND SCOTLAND, 1707.

REIGNED 13 YEARS.

1714 TO 1727

BORN 1660 DIED 1727

GEORGE I.

LENGTH OF PARLIAMENT FIXED AT SEVEN YEARS, 1716.

REIGNED 33 YEARS.

1727 TO 1760

BORN 1683 DIED 1760

GEORGE II.

BATTLE OF PLASSEY, IN INDIA, WON, 1757.

REIGNED 60 YEARS.

1760 TO 1820

BORN 1738 DIED 1820

GEORGE III.

BATTLE OF WATERLOO WAS WON, 1815.

REIGNED 10 YEARS.

1820 TO 1830

BORN 1762 DIED 1830

GEORGE IV.

CATHOLIC EMANCIPATION ACT PASSED, 1829.

REIGNED 7 YEARS.

1830 TO 1837

BORN 1765 DIED 1837

WILLIAM IV.

THE GREAT REFORM BILL PASSED, 1832.

STILL REIGNING.

Began to Reign, June 20th, 1837.

Born, May 24th, 1819.

Married to Prince ALBERT, 10th February, 1840.

VICTORIA.

INDIAN MUTINY SUPPRESSED, 1857.

11. EDWARD III.,

Son of Edward II.

The eld-est son of the de-pos-ed king was on-ly four-teen when he be-gan to reign, but he soon show-ed that he had great ta-lents and many vir-tues. He was as brave, and kind, and wise as his grand-fa-ther, Ed-ward I. Dur-ing his reign, the great vic-tor-ies of Cre-cy and Poic-tiers were gain-ed over the French. When he was an old man, he was great-ly trou-bled by the death of his son, Ed-ward the Black Prince, who was as good and brave a man as his fa-ther. Ed-ward III. died in 1377, af-ter a reign of near-ly fif-ty-one years.

12. RICHARD II.,

Grandson of Edward III.

Rich-ard was not a clev-er man, and some-times he was very weak and fool-ish. He be-hav-ed bad-ly to many of the peo-ple, so that at length he was de-pos-ed in fa-vour of his cou-sin, Hen-ry, who was kind and good-na-tured to the peo-ple. Rich-ard died—some say he was mur-der-ed—in Ponte-fract Cas-tle, in 1400.

13. HENRY IV.,

Grandson of Edward III.

The first king of the House of Lan-cas-ter be-gan to reign a few months be-fore his cou-sin Rich-ard died. He came to the throne in 1399, and died in 1413. He was a dar-ing, ac-tive, and yet cau-tious man. Du-ring his reign the first ex-e-cu-tion for re-li-gi-ous opin-i-ons took place: the mar-tyr be-ing the Rev. Wil-liam Sau-tre.

14. HENRY V.,

Son of Henry IV.

Hen-ry is one of the most fa-mous of Eng-lish kings. He was the son of Hen-ry IV., and was made king at his fa-ther's death in 1413. The prin-ci-pal event of his reign was the French war, in which was won the fa-mous bat-tle of A-gin-court, in 1415, which the Eng-lish gain-ed over the French, al-though they were sev-en times the num-ber of the Eng-lish. Hen-ry was a very brave man, and was also very just, and all his peo-ple lov-ed him; but he died very young, on the 31st of Au-gust, 1422, when he had on-ly been king a-bout nine years.

15. HENRY VI.,

Son of Henry V.

This king was on-ly an in-fant of nine years old when he came to the throne. As he grew old-er, it be-came clear that he was so weak-ly in mind as to be hard-ly ca-pa-ble of gov-ern-ing with-out the as-sist-ance of oth-ers. Ed-ward, Duke of York, said he had a bet-ter right to be king than Hen-ry had, and so, many ter-ri-ble bat-tles were fought be-tween the fol-low-ers of Hen-ry and Ed-ward. The friends of Ed-ward had the white rose for their en-sign, and the friends of Hen-ry chose a red rose, so these sad wars are cal-led the Wars of the Ros-es. Hen-ry was im-pris-on-ed at last in the Tow-er, where he died or was kil-led in 1472.

16. EDWARD IV.,

Cousin of Henry VI., and first King of the House of York.

This king was the son of Rich-ard, Duke of York, who was a great-grand-son of Ed-ward III. He was pro-claim-ed king in 1461, near-ly e-lev-en years be-fore Hen-ry's death. He was not a good man, and the sad civ-il war, cal-led the Wars of the Ros-es, went on for a long time in his reign. Print-ing was first set up in Eng-land in this reign, by a very clev-er man, cal-led Wil-liam Cax-ton. Ed-ward died in 1483.

17. EDWARD V.,

Son of Edward IV.

When Ed-ward IV. died, his eld-est son, Ed-ward V., was on-ly a boy of twelve years old. He was on-ly king for e-lev-en weeks. The boy and his bro-ther were brought to Lon-don, and sent to the Tower, where, in the dead of night, they were smoth-er-ed, ac-cord-ing to gen-e-ral be-lief, by or-der of their cru-el un-cle, Rich-ard, Duke of Glou-ces-ter.

18. RICHARD III.,

Brother of Edward IV.

This king, who was also called "Crook-back," be-cause of his de-formed shoul-ders, began to reign in 1483, but was killed at the bat-tle of Bos-worth, in 1485. So he did not long en-joy the crown, to gain which he is said to have com-mit-ted man-y crimes, and to have caused his neph-ews to be slain.

19. HENRY VII., TUDOR,

Great-great-grandson of Edward III.

By mar-ry-ing E-liz-a-beth, the heir-ess of the York fam-il-y, Hen-ry strength-en-ed his claim to be king. He de-feat-ed Rich-ard III. at the bat-tle of Bos-worth Field (which was the last be-tween the rival Roses), and Rich-ard be-ing slain in the bat-tle, Hen-ry was made king. Du-ring his reign Chris-to-pher Col-um-bus dis-cov-ered A-mer-i-ca. Hen-ry died on the 22nd A-pril, 1509, and he was bur-ied in the mag-nif-i-cent chapel which he had built in West-min-ster Ab-bey, called to this day Hen-ry the Seventh's Chap-el.

20. HENRY VIII.,

Son of Henry VII.

Henry was at first a come-ly prince, but be-came ver-y fat af-ter-wards. He mar-ried six wives, and caused two of them to be be-head-ed. He was cru-el and ty-ran-ni-cal, but in his reign was laid the found-a-tions of Pro-test-ant-ism. He died in 1547.

21. EDWARD VI.,

Son of Henry VIII.

It is said that this prince knew Lat-in and French well when on-ly ten years old. He great-ly fa-voured trade and learn-ing, and the spread of Pro-test-ant-ism. The great event of his reign was the com-ple-tion of the Re-for-ma-tion, by which Pro-test-ant-ism be-came the es-tab-lish-ed re-li-gion of Eng-land. He died when only 16 years old, in the year 1553.

22. MARY I.,

Daughter of Henry VIII.

At first the peo-ple liked Mar-y ve-ry much, but she be-haved ve-ry bad-ly to them, so that they be-gan to dis-like her. She mar-ried Phil-ip of Spain, which was much a-gainst the peo-ple's will, and she per-se-cu-ted the Pro-test-ants. Man-y ve-ry good peo-ple were burned in her reign, be-cause they were Pro-test-ants. She died in 1558.

23. ELIZABETH,

Daughter of Henry VIII.

E-liz-a-beth was a ve-ry good queen. Man-y great men lived in her time: Sir Wal-ter Ra-leigh, Lord Bur-leigh, and Sir Fran-cis Drake, and others. The Span-ish Ar-ma-da, an im-mense fleet of war-ships sent by the king of Spain to con-quer Eng-land, was com-plete-ly de-feat-ed. Our great poet, Shake-speare, lived in the reign of Queen E-liz-a-beth. She died in 1603.

24. JAMES I.,

Son of Mary, Queen of Scots.

James I. was de-scend-ed from Hen-ry VII., and, as the chil-dren of Hen-ry VIII. had left no heir, James was the next in or-der. Du-ring his reign the Ro-man-ists tried to blow up the Hous-es of Par-lia-ment with gun-

[*Continued on page* 400.

TABLE OF THE KINGS & QUEENS OF ENGLAND.

Number.	Name of Kings.	Name of Dynasty.		Date.	Length of Reign.
Before the Conquest.					
1	Egbert	15 EARLY SAXON KINGS.	1	827 to 836	9 Years.
2	Ethelwulf		2	836 ,, 857	21 ,,
3	Ethelbald		3	857 ,, 860	3 ,,
4	Ethelbert		4	860 ,, 866	6 ,,
5	Ethelred I.		5	866 ,, 871	5 ,,
6	Alfred the Great		6	871 ,, 901	30 ,,
7	Edward the Elder		7	901 ,, 925	24 ,,
8	Athelstan		8	925 ,, 941	16 ,,
9	Edmund I.		9	941 ,, 946	5 ,,
10	Edred		10	946 ,, 955	9 ,,
11	Edwy the Fair		11	955 ,, 959	4 ,,
12	Edgar the Peaceable		12	959 ,, 975	16 ,,
13	Edward the Martyr		13	975 ,, 978	3 ,,
14	Ethelred II., the Unready		14	978 ,, 1017	39 ,,
15	Edmund II., Ironside		15	1017 ,, 1017	8 Months.
16	Canute	3 DANISH KINGS.	1	1017 to 1036	19 Years.
17	Harold I., Harefoot		2	1036 ,, 1039	3 ,,
18	Hardicanute		3	1039 ,, 1041	2 ,,
19	Edward the Confessor	LATER SAXON KINGS.	1	1041 to 1066	25 Years.
20	Harold II.		2	1066 ,, 1066	7 Months.
20					
After the Conquest.					
1	William I., the Conqueror	4 NORMAN KINGS.	1	1066 to 1087	21 Years.
2	William II., Rufus		2	1087 ,, 1100	13 ,,
3	Henry I., Beauclerc		3	1100 ,, 1135	35 ,,
4	Stephen		4	1135 ,, 1154	19 ,,
5	Henry II., Plantagenet	8 PLANTAGENET KINGS.	1	1154 to 1189	35 Years.
6	Richard I., Cœur-de-Lion.		2	1189 ,, 1199	10 ,,
7	John, Lackland		3	1199 ,, 1216	17 ,,
8	Henry III.		4	1216 ,, 1272	56 ,,
9	Edward I., Longshanks		5	1272 ,, 1307	35 ,,
10	Edward II.		6	1307 ,, 1327	20 ,,
11	Edward III.		7	1327 ,, 1377	50 ,,
12	Richard II.		8	1377 ,, 1399	22 ,,

Number. After the Conquest.	Names of Kings and Queens.	Name of Dynasty.		Date.	Length of Reign.
13	Henry IV., Bolingbroke	3 HOUSE OF LANCASTER KINGS.	1	1399 to 1413	14 Years.
14	Henry V.		2	1413 „ 1422	9 „
15	Henry VI.		3	1422 „ 1461	39 „
16	Edward IV.	3 HOUSE OF YORK KINGS.	1	1461 to 1483	22 Years.
17	Edward V.		2	1483 „ 1483	11 Weeks.
18	Richard III., Crookback.		3	1483 „ 1485	2 Years.
19	Henry VII.	5 TUDOR KINGS AND QUEENS.	1	1485 to 1509	24 Years.
20	Henry VIII.		2	1509 „ 1547	38 „
21	Edward VI.		3	1547 „ 1553	6 „
22	Mary I.		4	1553 „ 1558	5 „
23	Elizabeth		5	1558 „ 1603	45 „
24	James I.	6 STUART KINGS AND QUEENS.	1	1603 to 1625	22 Years.
25	Charles I.		2	1625 „ 1649	24 „
—	*Cromwell* (Who Ruled as Lord Protector)		-	1649 „ 1660	11 „
26	Charles II.		3	1660 „ 1685	25 „
27	James II.		4	1685 „ 1688	3 „
28	William III. & Mary II.		5	1689 „ 1702	13 „
29	Anne		6	1702 „ 1714	12 „
30	George I.	6 KINGS AND QUEEN OF THE HOUSE OF HANOVER.	1	1714 to 1727	13 Years.
31	George II.		2	1727 „ 1760	33 „
32	George III.		3	1760 „ 1820	60 „
33	George IV.		4	1820 „ 1830	10 „
34	William IV.		5	1830 „ 1837	7 „
35	Victoria		6	1837 STILL REIGNING.	

DESCENT OF THE SOVEREIGNS OF ENGLAND.

The office of King or Queen of England is hereditary, and it is a significant fact that Queen Victoria can trace her descent back through hundreds of years to William the Conqueror, and also to Egbert, first king of the English. Thus:—

Victoria, Queen of Great Britain and Ireland, is the daughter of Edward, Duke of Kent, who was the fourth son of George III. Now George III. was the direct descendant of Sophia, Electress of Hanover, who was the granddaughter of James I. James I. was the direct descendant of Henry VII., who was the great great grandson of Edward III. This king was the descendant of Henry II., who was the grandson of Henry I. (son of William the Conqueror), and Maud, the Saxon Princess; this lady was descended (through Edmund Ironside and Edmund I.) from Alfred the Great, and Egbert, first king of England.

pow-der, but the plot was found out. Some Eng-lish-men, called the Pil-grim Fath-ers, went to A-mer-i-ca, and found-ed a new coun-try called New Eng-land in this reign. James I. died in 1625.

25. CHARLES I.,

Son of James I.

Charles was a ve-ry un-wise king. By the bad ad-vice of his wife and some of his friends, he did man-y things which made the Par-li-a-ment and the peo-ple dis-like him, and at last they de-thron-ed him. He was be-head-ed on the 30th Jan-u-a-ry, 1649.

THE COMMONWEALTH.

Oliver Cromwell, Lord Protector.

Crom-well was not called a king, and he re-fu-sed the crown when it was of-fer-ed him. He was the lead-er of the Par-li-a-men-tar-y arm-y which con-quer-ed Charles; and this pe-ri-od, when Crom-well ruled, is called "The Com-mon-wealth," and Crom-well was called "The Pro-tect-or." He was a ve-ry brave man, and a ter-ror to all Eng-land's en-e-mies.

26. CHARLES II.,

Son of Charles I.

At the death of Ol-i-ver Crom-well, his son Rich-ard be-came Pro-tect-or, but he re-sign-ed in five months, and Charles II., son of Charles I., was wel-com-ed back to the throne. He was a great lov-er of ease, and sac-ri-ficed the wel-fare of the na-tion for French mon-ey. Du-ring his reign the Great Plague of Lon-don oc-cur-red, when more than 100,000 per-sons are said to have died of a noi-some pest-i-lence. This was fol-lowed by the Great Fire of Lon-don in the next year, 1666. Charles died in 1685.

27. JAMES II.,

Son of Charles I.

Like his fa-ther Charles I., James II. was a very un-wise king, and the bad way in which he treat-ed the peo-ple, caused them to de-throne him al-so, and to of-fer the crown to his daught-er Ma-ry and her hus-band Wil-liam. James es-caped to France, where he died in 1701.

28. WILLIAM III. & MARY II.,

Nephew and Daughter of James II.

These sov-er-eigns came to the throne in 1688. Wil-liam was the son-in-law and also the neph-ew of the late king. He and his wife ruled well, and were much loved by the peo-ple. Ma-ry died in 1694, and Wil-liam died in 1702.

29. ANNE,

Daughter of James II.

The sis-ter of Ma-ry II. be-came queen at the death of Wil-liam III. She was a ve-ry good wo-man, and much be-lov-ed by her sub-jects. Du-ring her reign the Duke of Marl-bo-rough gained sev-er-al great bat-tles ov-er the French. Queen Anne died in 1714.

30. GEORGE I.,

Great-grandson of James I.

As all the child-ren of Queen Anne died be-fore her, the crown came at her death to George of Han-o-ver, who was the great-grand-son of James I. He knew but lit-tle Eng-lish, hav-ing lived all his life in Ger-man-y. But a law had been pas-sed that no Ro-man Cath-o-lic could be king, so he was made king, in-stead of the son of James II., who was a Ro-man-ist. George I. died in 1727, and on the whole he was a good king, and ruled wise-ly.

31. GEORGE II.,

Son of George I.

Du-ring this reign, in 1745, a re-bel-lion broke out in Scot-land to place the son of James II. on the throne. Char-les Ed-ward, the grand-son of James, land-ed in Scot-land, and gain-ed some vic-tor-ies, but his troops were fi-nal-ly de-feat-ed at the bat-tle of Cul-lod-en, in 1746. George II. died in 1760.

32. GEORGE III.,

Grandson of George II.

This king was twen-ty-two years old when he came to the throne, and he was king for six-ty years. In his reign a tax was forced on the A-mer-i-can col-o-nies, to which they strong-ly ob-ject-ed. A sad war be-gan, which end-ed in the A-mer-ic-an States ob-tain-ing their in-de-pen-dence. They be-came a Re-pub-lic, gov-erned by an e-lect-ed Pres-i-dent, and cal-led the U-ni-ted States of A-mer-i-ca. In Eu-rope, Eng-land was en-gaged in long wars, which end-ed by the vic-to-ry ob-tain-ed by Wel-ling-ton o-ver Na-po-le-on, the French em-per-or, at Wa-ter-loo. This was in 1815. Some time be-fore the king died—which e-vent took place in 1820—he was not a-ble to rule, and his son, af-ter-wards George IV., was ap-point-ed Re-gent.

33. GEORGE IV.,

Son of George III.

George IV. was not such a good king as his fa-ther, George III. He was very un-kind to his wife, and he was-ted his mo-ney, and neg-lec-ted his du-ties. He died in 1830 at Wind-sor Cas-tle.

34. WILLIAM IV.,

Third Son of George III.

Wil-liam was six-ty-five years old when he be-gan to reign, and his kind-ness of heart se-cured him a heart-y wel-come from all his sub-jects. He was on-ly king sev-en years, for he died on 20th June, 1837. Du-ring his reign, rail-ways were first es-tab-lished, main-ly by the gen-i-us and per-se-ve-rance of George Ste-phen-son, the in-ven-tor of the lo-co-mo-tive en-gine.

35. VICTORIA,

Daughter of Edward, Duke of Kent, and Grand-daughter of George III.

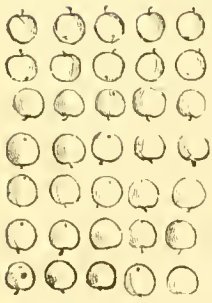
Vic-tor-i-a be-came queen at the death of her un-cle, Will-iam IV., and is still our be-lov-ed sov-er-eign. As she was born on the 24th of May, 1819, Her Ma-jes-ty was on-ly eight-een years old when she be-gan to reign in 1837. Since then, by her good-ness and kind-ness, she has en-dear-ed her-self more and more to her peo-ple. On the 10th of Feb-ru-a-ry, 1840, Her Ma-jes-ty was mar-ried to Prince Al-bert of Saxe Co-bourg and Goth-a, and he was such a good and wise man, that this mar-ri-age was one of the hap-pi-est e-vents. But on the 14th of De-cem-ber, 1861, he died of ty-phoid fever, to the great grief of the Queen, and of the na-tion. The Queen and Prince Con-sort had nine child-ren, the eld-est of whom, the Prin-cess Roy-al, is mar-ried to the Crown Prince of Prus-sia; the second, the Prince of Wales and heir to the throne, is mar-ried to the Prin-cess A-lex-and-ra, of Den-mark; the third, the Prin-cess Alice, was mar-ried to Prince Louis of Hesse, but she died in 1878; the Prin-cess Hel-ena is mar-ried to Prince Chris-tian; the Prin-cess Louise to the Mar-quis of Lorne; the Duke of Edin-burgh to the on-ly daught-er of the Em-per-or of Rus-sia; the Duke of Con-naught to the daugh-ter of Prince Charles of Prus-sia; Prince Leo-pold to the daugh-ter of the Prince of Wal-deck; and Prin-cess Be-a-trice.

Nine	times	1	are	9	Ten	times	1 are 10
,,	,,	2	,,	18	,,	,,	2 ,, 20
,,	,,	3	,,	27	,,	,,	3 ,, 30
,,	,,	4	,,	36	,,	,,	4 ,, 40
,,	,,	5	,,	45	,,	,,	5 ,, 50
,,	,,	6	,,	54	,,	,,	6 ,, 60
,,	,,	7	,,	63	,,	,,	7 ,, 70
,,	,,	8	,,	72	,,	,,	8 ,, 80
,,	,,	9	,,	81	,,	,,	9 ,, 90
,,	,,	10	,,	90	,,	,,	10 ,,100
,,	,,	11	,,	99	,,	,,	11 ,,110
,,	,,	12	,,	108	,,	,,	12 ,,120
Eleven	times	1	are	11	Twelve	times	1 are 12
,,	,,	2	,,	22	,,	,,	2 ,, 24
,,	,,	3	,,	33	,,	,,	3 ,, 36
,,	,,	4	,,	44	,,	,,	4 ,, 48
,,	,,	5	,,	55	,,	,,	5 ,, 60
,,	,,	6	,,	66	,,	,,	6 ,, 72
,,	,,	7	,,	77	,,	,,	7 ,, 84
,,	,,	8	,,	88	,,	,,	8 ,, 96
,,	,,	9	,,	99	,,	,,	9 ,,108
,,	,,	10	,,	110	,,	,,	10 ,,120
,,	,,	11	,,	121	,,	,,	11 ,,132
,,	,,	12	,,	132	,,	,,	12 ,,144

THE NINE, TEN, ELEVEN, AND TWELVE TIMES TABLES.

PICTORIAL ARITHMETIC.

MULTIPLICATION (*continued*).



SEVEN TIMES FIVE ARE THIRTY-FIVE.

WE have not quite done with Multiplication yet, you see, and there are four more tables I want you to learn before we leave it.

These are the Nine, Ten, Eleven, and Twelve times. You might learn them without your cubes, or, if you like it better, you can still use them for a little while, by arranging them in groups as I have

done in the picture of apples at the beginning of this lesson.

You must go over these tables again and again, until you learn them all by heart, from the "Twice" table to "Twelve times." And when you are old enough you should learn others from "Thirteen times" to "Twenty times." But from Twice to Twelve times will be enough for you now.

Here are some little sums on the four tables I gave you before,—

3 6 9 4 2 8	5 4 3 8 7 6
5	7
1 8 4 7 1 4 0	3 8 0 7 1 3 2

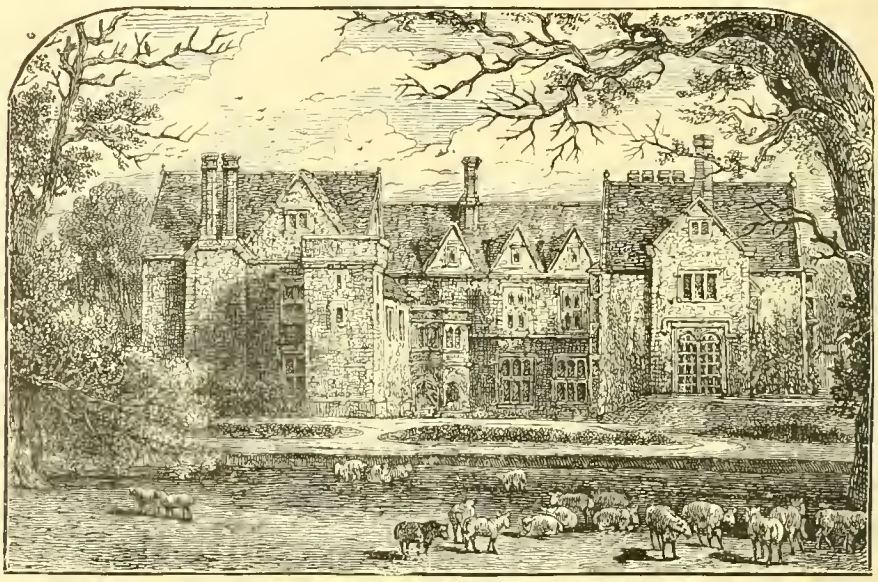
I will not go over the figures with you, but you must try to work the sum alone, and then look on the book to see if you have done it correctly. Here is another,—

You see these little sums are very easy to do when you once thoroughly understand the *rule* of working them, and know your tables well. You ought to work these sums without the help of your cubes.

4 3 2 9 8 5	7 5 4 2 9 3
6	8
2 5 9 7 9 1 0	6 0 3 4 3 4 4

You must ask some one to give you a number of other little sums like these, and also some on the four tables I have placed at the head of this lesson; in fact, you should practise little sums on all the Twelve tables until you can do them easily.

Next time I shall tell you about Division—the fourth rule of Arithmetic, and I want you to understand Multiplication thoroughly before you try it.



AN OLD ENG-LISH MAN-OR HOUSE.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

IX.—SOME MORE WORDS OF TWO SYLLABLES, ACCENTED ON THE FIRST.

i-bis	in-flux	jab-ber	jol-ly
i-bex	in-gress	jack-et	jon-quil
i-dler	in-gle	jag-ged	jor-dan
i-dol	in-let	jar-gon	joy-ful
i-lex	ink-stand	jas-mine	judg-ment
i-rish	in-nate	jas-per	jug-gle
im-age	in-sect	jel-ly	jum-ble
in-cense	in-sult	jer-sey	jun-gle
in-come	irk-some	jet-sam	jun-ket
in-dex	is-land	jew-el	jus-tice
in-fant	isth-mus	jin-gle	jut-ting

WORDS OF TWO SYLLABLES, ACCENTED ON THE FIRST.

kaf-fir	la-bel	mad-am	na-ked
ken-nel	la-bour	mag-net	nar-row
ker-nel	la-dy	mag-pie	na-sal
kes-trel	lad-der	ma-ker	nas-ty
ket-tle	lar-der	mal-let	na-tive
keen-ness	lan-cet	man-gle	na-ture
keep-er	lat-ter	man-ner	nec-tar
key-hole	law-ful	mar-ble	need-ful
kid-nap			nee-dle
kid-ney			nev-er
kin-dle			net-tle
kind-ness			net-ting
kin-dred			nib-ble
king-dom			nim-ble
kins-man			no-ble
kir-tle			non-sense
kit-chen	law-yer	mar-ket	nos-tril
kit-ten	land-lord	ma-son	no-tion
kna-vish	let-ter	mas-ter	no-tice
kneel-ing	lim-ber	mat-ter	nov-ice
knit-ting	lit-ter	med-dle	nov-el
knock-er	lit-tle	mel-low	naught-y
knot-ted	lock-et	mem-ber	nug-get
know-ing	lo-cust	men-tal	num-ber
know-ledge	loy-al	mod-est	nur-ture
krem-lin	lug-gage	monk-ey	nut-meg

"HUSH-A-BYE, BABY, ON THE TREE TOP."

WORDS OF TWO SYLLABLES, ACCENTED ON THE FIRST.

oak-um
oat-cake
oat-meal
ob-ject
ob-long
of-fer
of-fice
oil-man
oint-ment
old-er
ol-ive
o-men
o-pen
or-ange
or-chard
or-der
or-gan
or-phan
ost-ler
os-trich
oth-er
ot-ter
out-cast
o-ver
own-er
oys-ter

pack-age
pad-dle
pad-dock
pal-ace
pam-per
pan-cake
pa-per
pa-rent

"TO MAR-KET, TO MAR-KET, TO BUY A FAT PIG."

par-cel
pas-sage
pas-sion
ped-lar
pen-ny
pep-per
per-son
pic-ture
po-ker
pup-py

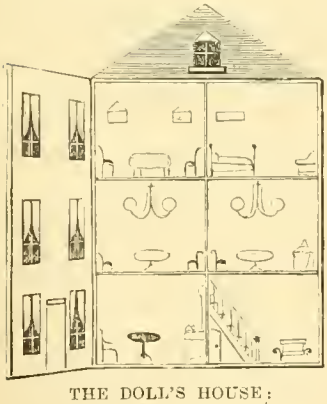
quack-ing
quad-rant
quag-mire
qua-ker
quar-rel
quar-ry
quar-ter
quar-tern
qua-ver
que-ry
queer-ly
quib-ble
quick-en
qui-et
quin-sy
quiv-er
quo-rum
quo-ta

rab-bit
rack-et
raf-ter
rag-ged
rail-ing
rai-ment
rain-bow
rai-sin
ran-cid
rat-tle
ra-zor
rec-tor
ref-uge
rest-less
rib-bon
rid-dle
rip-ple
ri-val
riv-er
riv-et
rob-ber
rock-et
rough-ly
rud-der
run-ning
rus-tic

JE VOUS DONNERAI UNE TASSE DE THÉ.
I WILL GIVE YOU A CUP OF TEA

EASY LESSONS IN FRENCH.

NINTH LESSON: A HAPPY VISIT.—*UNE HEUREUSE VISITE.*



THE DOLL'S HOUSE:
LA MAISON DES POUPÉES.

WE show the doll's house to the little French children. *Nous montrons la maison des poupées aux petits enfants Francais.*

"Ah, ha! 'Ow you do, leetle mees? 'Ow you do, leetle sare? Dis ees *ma sœur*, my seester, I you brot to see. *Ma sœur*, say 'Ow you do!"

"'Ow you do!"

Why, children, children, how you laugh! Do you not know that my little French boy, Edouard, is trying to speak English to you, and is making his

little sister Rose speak English also? That is the nearest he can say yet to "How do you do," and he is sure to call *little, leetle,* because l, i, t, is sounded *lee* in French; and he is sure to say *ow* instead of *how*, because the French people only pronounce the letter H very seldom, and they find it difficult to sound it when they are speaking English. So do not laugh any more, but say: "How do you do?" in French. You remember I told you last time what it was.

"*Comment vous portez-vous, cher Edouard?*"
"How do you do, dear Edward?"
"*Comment vous portez-vous, chère Rose?*"
"How do you do, dear Rose?"

That is right; and both the little French children say "*Très bien, merci,*" which means "Very well, thank you." And now show your doll's house to *chère* Rose, and she and Edouard together will tell you the names of all the things in it, in French. Ah! here it is. But just give Rose a cup of tea because she is tired. Say, "I will give you a cup of tea." "*Je vous donnerai une tasse de thé.*" You see the French say "I you will give a cup of tea," and Rose says "*Merci,*" "Thank you," sips it, and then goes to the doll's house.

"*Ah! Quelle jolie petite porte!*"

There! Little Rose has caught hold of the little door, you see, and she cries out "What a pretty little door!"

"*Et ceci, c'est le marteau!*" "And this is the knocker!"

"*Et regardez les fenêtres! Ah! les belles fenêtres! Les fenêtres charmantes! Et avec des rideaux! Des rideaux en toile, et des rideaux en mousseline, et la mousseline garnie! Ah, ho! Holà, joie!*"

She is so delighted with the windows, too. She cries out,

"And look at the windows! The beautiful windows, the charming windows! And with curtains! Linen curtains, and muslin curtains, and the muslin trimmed! Oh, joy!"

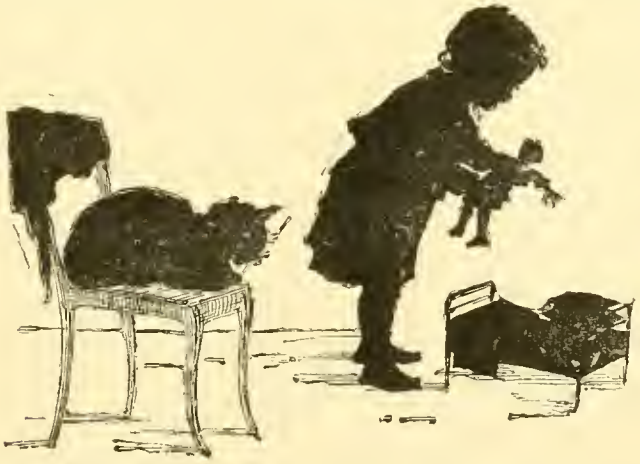
"*Et le toit!*" "And the roof."

"*Et la cheminée!*" "And the chimney."

"*Et le passage, et l'escalier!*" "And the passage and the stair-case."

"*Avec une, deux, trois, quatre, cinq, six chambres! Oh, Edouard! Que les enfants Anglais sont heureux!*"

"With one, two, three, four, five, six rooms! Oh, Edouard! How happy English children are!" Only you see the way to say it in French is "How the children English are happy!"



JE METTRAI LA POUPÉE AU LIT.—I WILL PUT THE DOLL TO BED.

"*Cette chambre est la cuisine! Ah, la jolie cuisine!*"

"This room is the kitchen! Oh, the pretty kitchen!"

"*Cette chambre est le salon.*"

"This room is the drawing-room."

"*Celle-ci est la salle-à-manger.*" "This one is the dining-room."

"*Celle-ci est la bibliothèque.*" "This one is the library."

"*Et les deux autres au-dessus, sont des chambres à coucher.*"

"And the two others up above are bedrooms."

Say to Rose, "I will put the doll to bed." "*Je mettrai la poupée au lit.*"

"*Ah, quel plaisir! Joie, joie!*" "Oh, what pleasure! Joy, joy!"

Then after the doll is put to bed—

"*Ah, Anglaise! Anglaise! Je suis trop petite! Mettez-moi sur une chaise pour voir toutes les autres jolies choses!*"

"Ah, English girl, English girl, I am too small! Put me on a chair to see all the other pretty things!"

She says that to you, my dear, to lift her on the chair, so that she may see into the house nicely. Litt her up! That's right! Now she and her brother will tell you some more.

"*Le piano. La table. Le miroir. Les tableaux.*"

"The piano. The table. The looking-glass. The pictures."

"*Et le piano est ouvert avec la touche!*"

"And the piano is open, with the keys."

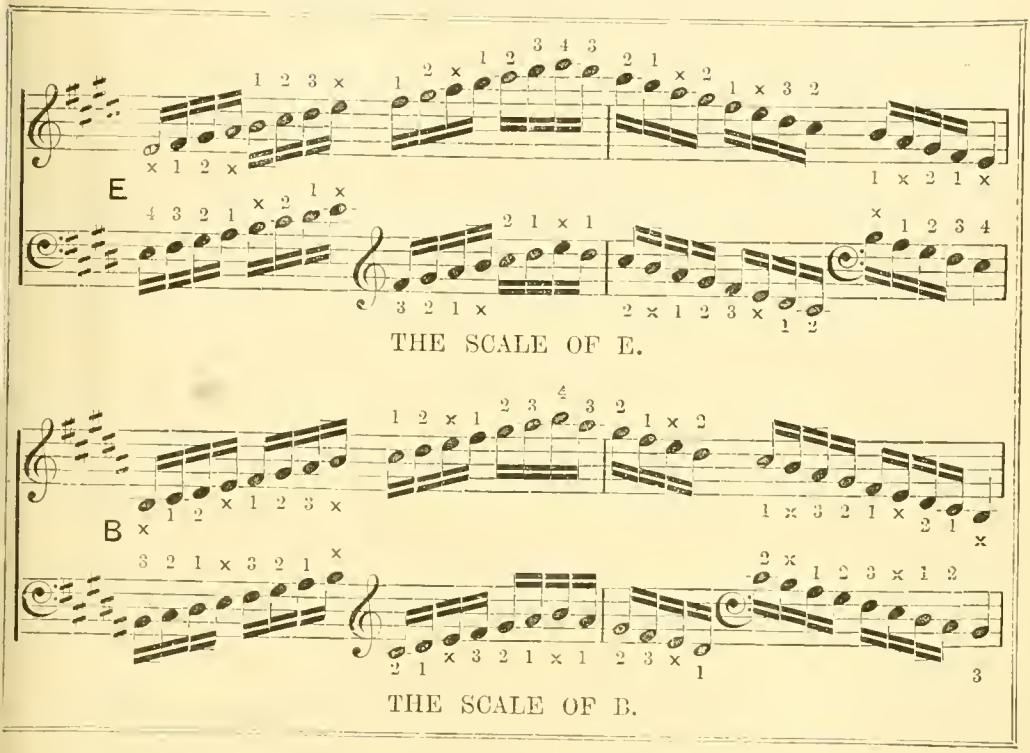
"*Et il y a un sofa, et un violon, et des nappes, et des couteaux, et des verres, et des assiettes, et une carafe, et une table-de-cuisine! Ah, quel plaisir!*"

"And there is a sofa, and a violin, and some cloths, and some knives, and some glasses, and some plates, and a decanter, and a dresser! Ah, what pleasure!"

But I think we have looked long enough at this doll's house now. Our little French visitors must be hungry; we must give them some tea. Say to Rose, "*descendez*," that is "get down," and give her your hand to help her. That is right. Now say to Edouard, "*asseyez-vous*," that is, "sit down," and we will all take our seats at the table properly. After tea we will play, and you shall give some tea to your doll—*vous donnerez du thé à votre poupée.*

And here are some words used at the tea table.

A cake, *un gâteau.*
Some sugar, *du sucre.*
Some milk, *du lait.*
Some tea, *du thé.*
Some coffee, *du café.*
Some chocolate, *du chocolat.*
Some cocoa, *du cacao.*
Some cream, *de la crême.*
Some preserve, *de la confiture.*
The bread, *le pain.*
Some butter, *du beurre.*
Some eggs, *des œufs.*
The crust, *la croûte.*
A cup, *une tasse.*

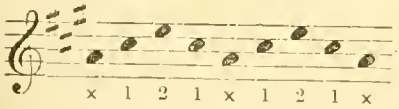


THE SCALE OF E.

THE SCALE OF B.

MUSIC AND SINGING.

MORE ABOUT SCALES AND SINGING.



SINGING EXERCISE ON THE SCALE OF A.
[You should practise this a little every day.]

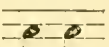
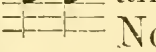
THE last scale you learned was the scale of A. Here is a singing exercise upon that scale. You may either sing the names of the birds as you play them, or sing the syllable "Ah" to each note.

The next scale is the scale of E. It is printed at the top of the page, and you will see that it contains four sharps—F, C, G, and D.

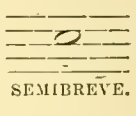
The fifth scale is the scale of B. It contains all the black birds—F sharp, C sharp, G sharp, D sharp, and A sharp.

These scales are called Major scales. The more difficult Major scales, and the Minor scales, you will be taught by and by, when you are older, and have quite done with these easy little lessons. Try and remember these five Major scales; play each one at least twelve times every day, and sing the lessons I have given upon each one, as far as A.

THE VALUE OF NOTES.

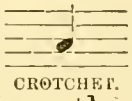
In looking at printed music, my little readers have perhaps been puzzled to find that some of the notes are open and white, like this while others are black, like this  and  some have tails, like this Now I will tell you all about it:—

The longest and most valuable note now used in music is called a Semibreve; it is written like this . . . . .


SEMIBREVE.

The next is called a Minim; it is printed like this (just a white note with a stroke belonging to it) . . . . .

MINIM.

The third note is a black note with a stroke, like this, 
CROTCHET. or this,
CROTCHET. for it does not matter whether the stroke or stem goes upwards or downwards, so long as the downward stroke is placed at the *left* of the note, and the upward stroke to the *right*. This third note is called a Crotchet.

The fourth note is called a Quaver. It is just like a Crotchet, only it has the addition of a little tail, like this . .

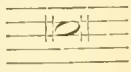
QUAVER.

So a Quaver is a black note with a stroke and a tail.

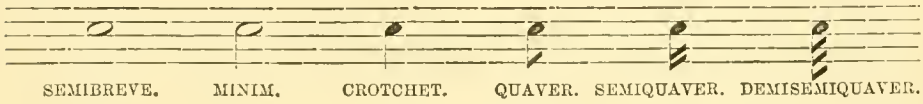
A Semiquaver is the fifth note in value. It is a black note with a stroke and two tails. Here it is . . . . .

A Demisemiquaver is the sixth and last note in value. It is a black note with a stroke and three tails, like this . .

A long time ago there were seven degrees of notes, for the first in value was not a Semibreve, but a Breve, which was written like this, It was such a very long note that for modern music it is of no use, so we leave it out altogether.



Write out all these notes upon your slate in their proper order, just as they are printed for you at the end of this lesson, putting the name under each note, and next month I will tell you just how much each note is worth in comparison with the other.



QUESTIONS.

What is discord?
What is an aviary?
Why do we call the piano a cage?
What are the names of the white birds?
What are the names of the black birds?
Which birds are C flat and B sharp?
Which other two white birds have no black *sharp or flat?*
How many names has each black bird?
Say them off in their proper order, beginning at F sharp.
What is the upper part of the cage called, and towards which hand does it lie?
What is the left-hand side of the cage called?
Which birds have the highest voices? which the lowest?
Which is the sign for treble? which for bass?
How many lines are used in printed music?
How many spaces?
What are the notes in the spaces and on the lines in the treble?
What are the notes on the lines and in the spaces in the bass?
What is an octave?
What is the third space below the stave in the bass?
What is the second line above the stave in the treble?
How is "an octave higher" expressed in printed music?
How many sharps has the scale of A? what are they?

A HOUSE ON FIRE.

[Did you ever see a house on fire? You would notice then how savagely the red flames burned up the beams, window-sills, and all other wood-work; and how thick clouds of smoke went up from the blazing pile. All the time this burning was going on the air was rushing in to feed the flames; or rather, the oxygen of the air was rushing in to keep up the burning, because the nitrogen of the air is of no use in such a case.]

CHEMISTRY FOR CHILDREN.

LESSON IV.—BURNING.

CANDLE FLAME.

WHEN a big building unfortunately gets on fire the oxygen in the air keeps the timber burning, just as it keeps the coals burning in the grate, or just as it kept the match burning in the experiment with the red precipitate, about which I told you last time. Let us turn to that experiment again. The red-hot charred end of the match when placed in the oxygen began to burn brightly. The carbon of the match was uniting with the oxygen to make a compound. The compound that was made was carbonic acid.

CARBON *and* OXYGEN *give* CARBONIC ACID.

This carbonic acid is an invisible gas, and in the fire we

have referred to it would go up in vast quantities along with the black smoke. It is likewise a gas which will not support life, so that many a time when men have been in it they have dropped down suffocated.

When a compound containing carbon takes fire, carbonic acid is produced. Fire-damp, which sometimes collects in coal mines, is a compound containing carbon, and when by some accident it has been fired you know that there has followed a terrible accident. Some of the miners have been killed by the sudden fire or explosion, and those who have not been killed have sometimes been suffocated by the carbonic acid formed. The miner calls the carbonic acid *choke-damp*.

WHEN WE BREATHE WE REQUIRE OXYGEN.

Every time we breathe, air containing oxygen is taken into the lungs, and is there joined to the carbon there is in some waste materials in the blood: carbonic acid is made; in fact, there is burning going on in the lungs without blaze or very great heat, and when we breathe out, the carbonic acid is sent out of the mouth. You would perhaps like to prove this for yourself. It may be done easily. But here, again, one cannot see carbonic acid, and we shall have to make it do something so as to make its presence plain to you.

We must first make a *test* for carbonic acid. Take a small piece of quick-lime and put it in a pot. Add some water. When the water sinks into the lime there is great heat produced, and the lime crumbles into a powder. Cover it with water, stir up, and then allow it to stand for a few hours. Pour off the clear liquid into another pot, and now, to make doubly sure that it is quite clear, take some white blotting paper and make a little funnel of it, pour the liquid gently into this funnel, and catch it as it passes through the paper in a clean drinking glass. This clear solution contains lime and water. What will happen if we add carbonic acid? In Lesson III. we have seen that chalk, when broken up, gives lime and carbonic acid. Probably, then, the lime and carbonic acid may be again joined to form chalk in this liquid. Such is the case. This lime-water is, therefore, a test for carbonic acid. So that if we suspect the air, or the breath, contains carbonic acid, all we have to do is to pass it into the lime-

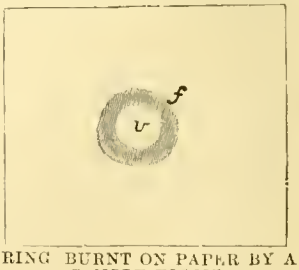
water. Take a piece of pipe-stem and put one end of it into the lime-water, and blow the breath through the pipe so that it rises in the liquid in bubbles. Soon the lime-water, which was as clear as crystal at first, becomes cloudy and white. Something in the breath is making the lime water into chalk, and that something is carbonic acid.

TEST FOR CARBONIC ACID.

SOMETHING ABOUT THE BURNING OF A CANDLE.

In the burning of a candle, carbonic acid is made. This burning of a candle is one of the most common of sights, but it certainly repays one for study.

When the wick is first lighted, the heat of its burning melts the tallow all around, so as to form a small tallow cup. At the bottom of this cup melted tallow collects, and out of its centre the wick stands with its upper part burning, or surrounded by tallow vapour, *A*. This vapour is made in this way: the melted tallow is drawn up the small tubes formed between the threads of the wick, and then the heat of the flame, *B*, makes it into vapour. This tallow vapour contains carbon, and it burns. So that we have the vapour entirely surrounded by white flame, and forming the blue portion at the base and in the middle of the flame. This vapour supplies the carbon to the flame from within, and constant currents of air supply the oxygen on the outside, and their burning forms the shell of flame. That this shell is hollow is easily proved. Take a sheet of writing paper and bring it down flat on to the flame. As you are looking down on to the paper you will see that a round ring is being burnt in to it. Remove the paper before it breaks into a flame. Now there will be found on the paper a burnt ring which stands for a section of the shell of flame (*f*), and in the middle there is an unburnt circle of paper which stands for the cone of vapour (*v*).



RING BURNT ON PAPER BY A CANDLE FLAME.

Another pleasing little experiment may be tried with the candle, which shows that it is the carbon containing vapour which burns. But I will tell you about this next time.

LAPLANDERS.

[Lapland is the name of the country which lies to the north of Sweden and Norway and Finland. The greater part of it belongs to Russia. The winter is very long and very cold, but the short summer is hot. The picture shows some of the Laplanders' huts, and also a reindeer sledge.]

GEOGRAPHY.

A LITTLE CHAT ABOUT EUROPE.

DIAGRAM SHOWING POSITION OF THE PORTIONS OF LAND CALLED EUROPE, ASIA, AFRICA, AND AMERICA.

EUROPE is one of the great divisions of land on the surface of the earth. The land on the earth is divided into five great portions — Europe, Asia, Africa, America, and Australia, and besides these there are numbers of islands. If you look on the map of the world you will see where that portion of land called Europe is situated. And by looking at a map of Europe, or at a map of the world, you will see that it has the Northern or Arctic Ocean at the top; the Atlantic Ocean on the west; the Mediterranean Sea on the south; and that large portion of land called Asia on the east. You will also see the British Isles on the left hand, and Iceland

above them. The Shetland and the Faroe Islands belong to England, the Balearic Isles belong to Spain, Corsica belongs to France, Sardinia and Sicily to Italy, and Malta to England. The principal Seas and Gulfs around Europe are:—The White Sea, the Baltic Sea, the Gulf of Bothnia, the Gulf of Finland, the North Sea or German Ocean, the English Channel, the Irish Sea, the Bay of Biscay, the Mediterranean Sea, the Gulf of Venice, the Sea of Marmora, the Black Sea, and the Sea of Azof.

Europe is divided into a number of countries. I will tell you a little about each in turn.

FRANCE, THE NEAREST EUROPEAN COUNTRY TO ENGLAND.

France is a large and beautiful country; its chief city is Paris, built on the banks of the river Seine. The French people are mostly Roman Catholics, and their Government is now a Republic. The chief rivers are the Seine, the Loire, the Gironde, the Garonne, and the Rhone. The chief ranges of mountains are the Pyrenees, separating France from Spain, the Vosges, and also some of the Alps. I say some, because some of the Alps are also in other countries; but the highest mountain in Western Europe is in the French Alps. It is called Mont Blanc, and it is 15,780 feet high. Mont Blanc means White Mountain, and it is always covered with snow at the top. The chief towns, besides Paris, are Marseilles, Bordeaux, Havre, Nantes, Rouen, and Lyons.

SPAIN.

Spain lies to the south-west of France, being divided from it by the Pyrenees Mountains. The people who live in Spain are called Spaniards. They are Roman Catholics. There are several mountain ranges besides the Pyrenees; these are the Asturian Mountains, the mountains of Toledo, the Sierra Nevada, and the Sierra Morena. The chief rivers are the Ebro, the Douro, the Tagus, the Minho, and the Guadalquiver. The capital city is Madrid; Barcelona, Seville, Cadiz, Malaga, Cordova, Granada, and Valladolid are the names of the chief towns.

PORTUGAL.

Portugal is a narrow-shaped country running down by the side of Spain, on the Atlantic coast. Many of the rivers that

rise in Spain run through Portugal on their way to the sea. The largest are the Guadiana, the Tagus, and the Douro. Lisbon, the chief city of Portugal, is at the mouth of the Tagus; Oporto is the name of another large town.

ITALY.

Italy is a very curiously shaped country. It is like a long boot kicking the island of Sicily into the sea! Look at it on

MAP OF EUROPE.

the map. All through Italy run the Apennine Mountains, and at the north there are the Alps, and near Naples is the wonderful burning mountain or volcano called Vesuvius; in Sicily there is the other volcano, Mount Etna. Italy has some very celebrated rivers—the Tiber, on the banks of which is Rome, one of the most famous cities in the world; the Po, and the Arno. The wonderful city of Venice also is in Italy. It is built on a number of islands, and instead of streets it has canals, and pretty boats called gondolas instead of horses and carriages.

SWITZERLAND.

Switzerland is at the top of Italy. It is noted for its beautiful lakes, as well as for magnificent mountains. The lakes are Geneva, Constance, Lucerne, and Zurich. The capital city is Berne, on the banks of the river Aar. Geneva is also a very famous city. The Government is Republican, and the people are an industrious and thrifty race. They are called *Swiss*.

BELGIUM.

Belgium is a small country on the shores of the North Sea. The capital is Brussels. Other large towns are Antwerp, Bruges, Namur, Mecklin, and Ostend. Formerly Belgium was called Flanders; it is a very populous and highly cultivated country, and has been the scene of many wars in Europe. The most famous battle ever fought there was at Waterloo, near Brussels, in 1815, when the great English Commander, the Duke of Wellington, conquered Napoleon. Fine laces and carpets are made in Belgium. The Government is a limited monarchy, and the people are happy and contented.

HOLLAND.

Holland lies close to Belgium. It is also known as the Netherlands. The people, who are called *Dutch*, are very thrifty, industrious, and enterprising; they have possessions in many parts of the world, and carry on a large trade. The surface of the country is low and flat. Parts of it are below the level of the sea, so that the water would flow over it if the people had not built up strong embankments of earth, called *dykes*, to keep the water out. The river Rhine flows through Holland on its way to the sea. There are also numerous canals, and in winter when they are frozen the Dutch skate on them a great deal. The Hague is the capital of Holland. Amsterdam, Rotterdam and Leyden are important cities. Like Belgium, the Government is a limited monarchy, under which the people live in great contentment.

GERMANY.

Next to Holland and Belgium, on the right, you will see Germany takes up nearly the whole centre of Europe. It is now an Empire, and the capital city is Berlin, on the river Spree. There are also many other beautiful cities: Dresden,

Munich, Frankfort, Hanover, Leipsic, Weimar. It has not much sea coast, but there are two or three busy ports—Hamburg, Dantzic (from whence a great deal of timber is shipped), and Bremen. The rivers of Germany are the Elbe, the Oder, the Maine, the Moselle, and the Rhine—a very beautiful river, with many fine towns on its banks—Cologne, Bonn, Coblentz, Düsseldorf, Strasburg, and Heidelberg.

AUSTRIA AND HUNGARY.

Below Germany, on the map, are the countries of Austria and Hungary. The chief mountains are the Carnic Alps and the Carpathian mountains. The Danube is the principal river, and Vienna is the capital of Austria. Other important towns are, Trieste, in the Gulf of Venice, and Prague, while Buda-Pesth is the capital of Hungary.

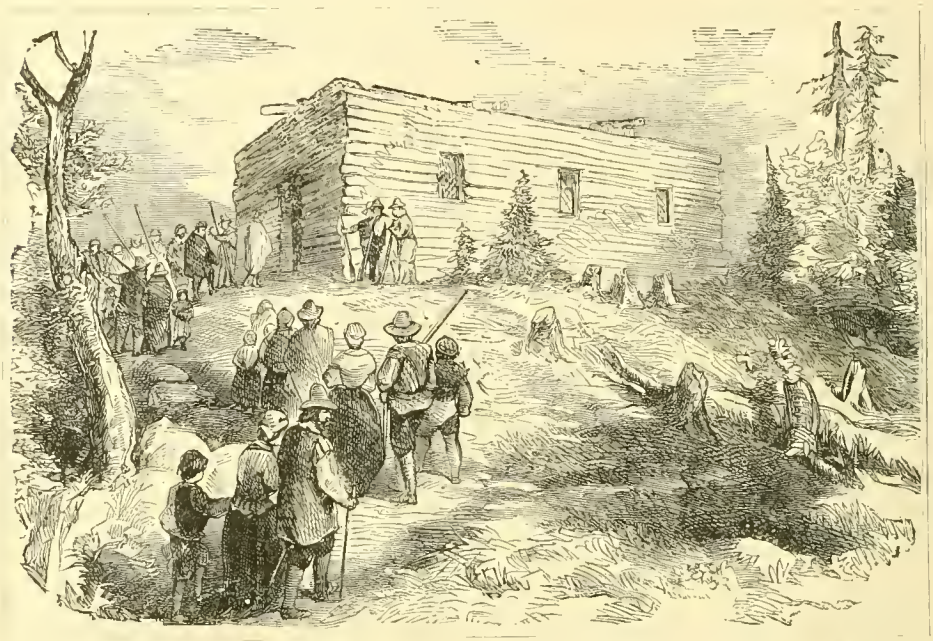
TURKEY AND GREECE.

Turkey, with the States which belong to it, is called also the Ottoman Empire. The Balkan range of mountains, and the Little Balkans, and the Codja Balkans, with others, run right through it. You will see a large city called Adrianople, but the chief city of Turkey is Constantinople. Some of the countries which used to belong to Turkey are now independent kingdoms; of these Roumania is a kingdom, and Bulgaria and Eastern Roumelia are principalities.

Greece is south of Turkey, and although the surface of the country is mountainous, there are many fine and fertile valleys, while the climate is pleasant and healthful. The Government is now a limited monarchy. Athens is the capital city. Olives, oranges, and figs are grown, and also wheat.

RUSSIA.

This is the largest country in Europe; it lies above Turkey and the Black Sea, and stretches right away to the Northern Ocean. The surface is nearly level, and there are towards the south extensive plains called *Steppes* upon which wheat is often grown. There are many noble rivers; these are the Don, the Dnieper, the Volga, the Dvina, the Vistula, and the Ural. The mountains are—the Ural range on the east, and the Caucasian on the south. The capital is St. Petersburg, but Moscow is the most famous city. Other important towns are Nijni Novgorod, Archangel, Astrakan, and Odessa.



THE PILGRIM FATHERS' FIRST FORT AND MEETING-HOUSE AT NEW PLYMOUTH.

AMERICAN HISTORY.

II.—THE LANDING OF THE PILGRIM FATHERS.

THE "MAYFLOWER," in which the Pilgrims sailed across the Atlantic.

FOR many years after Christopher Columbus came to America, numbers of persons from most of the European countries made settlements at different parts of the new continent. But the most important settlement was made in the year 1620 by a body of Puritan emigrants from England. I call this the most important settlement, because these Puritans did not come, as did others, simply to get money and to trade, and then perhaps return to Europe again; but they came to stay, to establish a new country where they might worship God as they chose. They had been made very unhappy in England, for they were not permitted to worship God in their own way, and they were often ill-treated. So they said, Let us go across the seas to this New World, and there we will make a New England where we can worship God in our own way.

So they crossed the Atlantic in a little ship called "The

Mayflower," and landed on the coast of Massachusetts at a place which they named New Plymouth, in grateful and loving remembrance of the last town they had seen in dear Old England. The large piece of rock on which they landed is still kept, and called "Forefathers' or Pilgrims' Rock" to this day. It was mid-winter when they came, and their sufferings from the cold and from scarcity of food were very great. But in course of a few months they managed to build a few little wooden houses, and on a little hill they made a strong wooden building, on the top of which they placed some cannon, so that if they were attacked they would be able to defend themselves. They also used the lower part of this building as a meeting-house or church.

Next year, in the summer of 1621, many more people came from England, and the colony grew largely. The Pilgrims made a treaty with the Indians who lived in the country around, and for some time they had no serious disagreement with them, but about two years after they landed some of the Indians quarrelled with some of the Englishmen, and a desperate fight occurred, in which a few of the savages were killed. After this for a long time they lived in peace together, and meantime many more Englishmen came over to the colony.

THE DORCHESTER ADVENTURERS.

A few years after the Pilgrim Fathers landed at New Plymouth a second settlement was made at a place called Massachusetts Bay. The people who came here are sometimes called "The Dorchester Adventurers," because many of them came from Dorchester in England. These early settlers met with many misfortunes. The ground required much cultivation before it would yield food, and they had to look to England for many of their stores. Their supplies, in fact, were often so scanty that they were obliged to live on shell-fish from the sea-shore.

The climate, also, was very severe, far more severe than that to which they had been accustomed in England, and many died through the terrible privations; but in spite of all difficulties the colonies gradually prospered. In about twenty-three years more than 21,000 emigrants had come over from England, and in that time they had cleared the ground for,

and partly built, fifty towns, thirty villages, and forty chapels. They had many fields of corn; they were very successful both in hunting and fishing, so that now there was plenty of food. They also began to build their own ships, and a great trade began to spring up between these colonies and other countries.

THE PILGRIMS MAKE PEACE WITH THE INDIANS.

Other colonies on the same shores had not been equally successful. The Dutch, French, and Spanish settlements had none of them attained the success of the Puritan settlers of New England. Moreover, these New England colonies were

now made into one commonwealth, with a duly elected parliament and a governor to direct its affairs.

FIGHTS WITH THE INDIANS.

For many years the Indians offered no very great resistance to the progress of the settlements. But at length they began to see that the white people, as they called them (for you must know that the Indians were of a red, copper colour), were quickly increasing, and that unless checked they would spread over the whole country, and cut down all the trees, kill all the wild animals, and drive the Indians out of the land. So they determined to make a grand effort to kill all the Englishmen.

The Indian who was the chief in this terrible scheme was known to the English as Philip. He was chief of a tribe known as the Pequod Indians. He persuaded other tribes to join him, and together they made war upon the settlers. The English left their ploughing and went to meet the enemy. Many sad battles were fought, in which many men were killed on both sides. And the Indians showed themselves both cunning and cruel. They would hide in swamps and thick forests, and then in the dead of night would rush upon some unprotected village, and, with terrible shouts, slaughter all the inhabitants and burn the houses. You would not like to have lived there then, would you, and be awakened some night by the terrible shouts of the Indians.

The war went on for some time, then Philip was killed, and the Indians, dejected and disappointed, gave up any united attempt against the colonists just then. But much fighting still took place, and they often used to attack villages at night, as I have just told you, and kill the emigrants. The Indian war-whoop often broke in upon the peaceful slumbers of the settlers in those days. But by degrees the colonies gradually increased, and the Indians seemed to vanish from the scene as they doubtless retreated farther and farther west.

QUESTIONS.

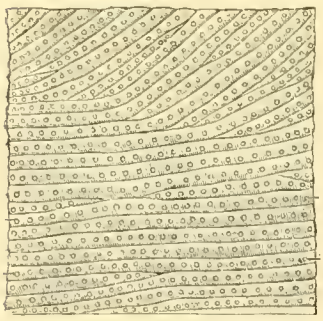
Who discovered America?
What king and queen helped him to do so?
What name did he give to the island he first found?
Who made settlements in the New World?
What was the most important settlement?
Why did the Pilgrim Fathers go to America?
What was the name of their ship?
Where did they land?
Tell me about their fights with the Indians.

BOYS BATHING.

[When you were very young, did you often cry when you were washed? I expect you did. But you should wash all over the skin every day, for the skin is such an important part of the body that it cannot do its work properly unless it is kept clean. So when you cannot bathe in a river you should have a bath at home.]

SOMETHING ABOUT MY OWN LITTLE BODY.

LESSON III.—THE SKIN.



A PIECE OF SKIN FROM THE PALM OF THE HAND,
Largely magnified, and showing the openings of the little sweat tubes.

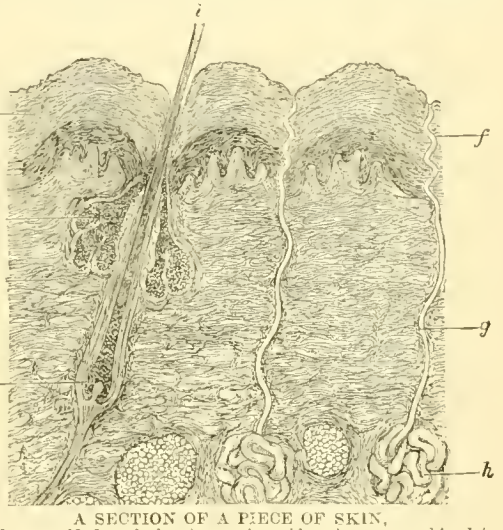
THE skin is so useful and so very necessary for the well-being of man, that he would die if it were covered up completely with some sticky substance like pitch. For the skin breathes in a way, and this covering of it up would completely stop its breathing. The skin in its breathing takes in oxygen from the air and gives out carbonic acid, like the lungs, but not to the same extent by a long way, so that its breathing is not of so much importance as that of the lungs.

This covering of the body with pitch would also stop the

very important process of sweating, which is always going on in a state of health ; all the millions of sweat tubes with their little mouths opening out on the surface of the skin, like the mouths of so many drain pipes, would have their openings closed.

In fact, the surface of the skin ought to be covered by no kind of covering except the clothes, and regularly it ought to be washed very clean every day, so that it can do with ease all that nature has designed it to do. Let us learn what we can about the skin.

The skin is indeed a most wonderful thing which the whole body is wrapped in, and it consists really of two layers, which we may here call the *outer* and the *inner* skins; the words which doctors use for them are the *epidermis* and the *dermis*. When a boy cuts himself by clumsily using his penknife, the cut will not bleed if only the outer skin be cut into, nor will he feel it ; but if the cut has gone a little deeper and into the inner skin, then blood begins to trickle out of the wound, and he feels pain. In the outer layer, therefore, there is no blood nor any nerves; in the inner layer of skin there are both blood and nerves. In fact, the outer skin is of a very scaly nature, and portions of it are being continually cast off and the waste has to be made up from below.



A SECTION OF A PIECE OF SKIN,
Largely magnified, and showing *a*, the epidermis or outer skin, *k i*, a hair growing out of the skin, *f g h*, sweat tubes.

SOMETHING ABOUT THE LITTLE OPENINGS IN THE SKIN.

The outer skin forms a complete covering for the body, and on its surface there are a vast number of minute openings, which have been variously reckoned up as from two and a half to two and a quarter millions ! These are the openings of the sweat tubes. Each tiny tube passes through the outer skin into the inner skin, where it winds about at

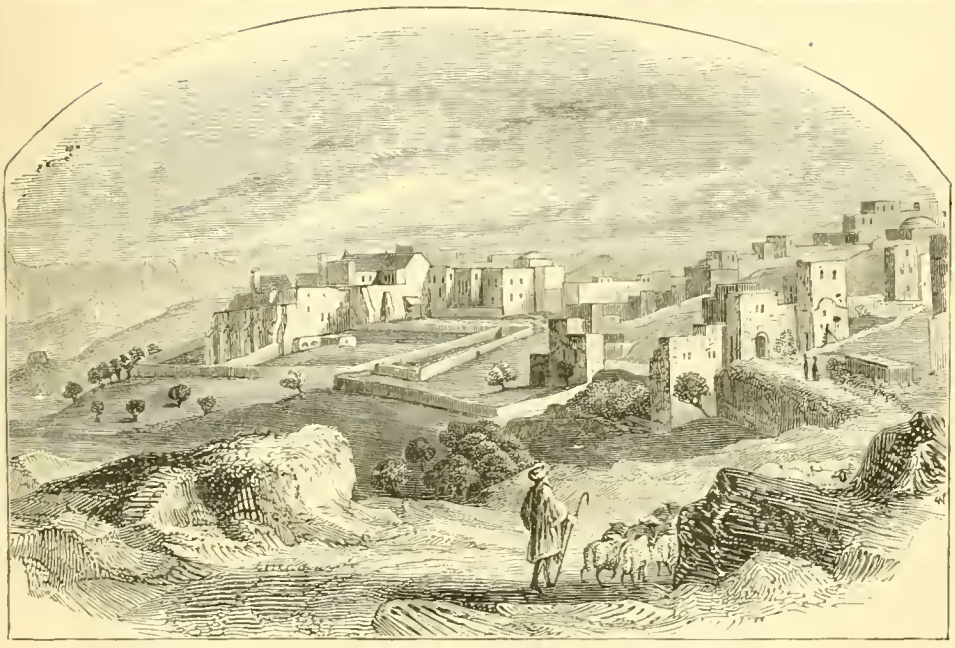
one end into a little ball, and in doing so passes in and out among the minute blood-vessels. A portion of the liquid contents of the blood-vessels passes into the sweat tubes, and is by them carried to the surface of the skin as sweat. This is where the sweat is made and how it is made. And when made, the sweat does not ooze from any part of the skin anyway; but, as we have before observed, it has its millions of proper outlets scattered all over the surface of the body. The number of sweat tubes to the square inch of skin varies with the part of the body: down the back there are a little over 400 to the square inch, but on the palm of the hand there are over 2,000 to the square inch.

A great amount of work is carried on by these sweat tubes—more, in fact, than one would think, for a man may lose as much as a couple of pounds in weight in an hour when hot and working hard. You see, therefore, how very needful it is to keep all these sweat pores of the skin open, so that they can carry on their work with ease, and this can only be managed by keeping the skin of the whole body clean.

As the sweat reaches the body its liquid portions are *evaporated*, and the solid portions remain to be washed away. Is the word *evaporate* too hard for you? It means to pass off as vapour.

WHY THE SKIN OF A NEGRO IS BLACK.

It is a wonderful thing that where a person is regularly exposed to great heat the skin alters so as to help the body to stand it. Thus a man may go out of the town he lives in and take up his residence in South Africa. You do not see him again for many years, and when he comes back his skin appears quite changed. Before leaving England his face was of a pale colour; now after being in Africa it is of a decided *brown*. The tropical sun pouring down its hot rays has turned the white man into a brown one, by making a black coloured substance in his skin. Freckles in the skin are of the same nature, only the black colouring substance occupies simply spots on the face instead of being spread evenly all over it. Hundreds of years of such sun influence have made the nations of equatorial regions quite black. The black condition of a negro enables him to stand the heat better than a man with a white skin. White is a colour belonging to cold snowy regions.



BETHLEHEM.

Jesus was born in Bethlehem of Judea.—*Matt.* iii. 1.

SCRIPTURE STORIES.

IX.—THE BIRTH OF JESUS CHRIST.

THE ANGELS APPEAR TO THE SHEPHERDS.

ONE night, near a little town called Bethlehem, some shepherds were in the fields keeping watch over their flocks to see that no harm came to them.

As they were sitting together, talking, a bright light shone in the sky, and lit up the darkness around, and an angel's voice from Heaven told them some good news. The angel said that not far from them there was a little new-born babe, who was Christ their Lord, and told them where they should find Him, and then a great number of angels appeared, praising God.

As soon as the angels had gone back again into heaven the shepherds went together into the town of Bethlehem, and there they found Jesus lying in a manger, for the town was very full of people, and there was no room at the inn. And when they had seen Him they told a number of people of what they had seen and heard, and they praised God.

And about the same time some wise men coming from the East saw a bright star in the sky, and they followed it until it led them to the place where Jesus was lying—a little baby in a manger. So they went in and worshipped him, and gave Him great gifts of gold and frankincense and myrrh.

Now, at that time a man called Herod was king, and when he heard of these things he was very troubled, for he thought that when Jesus grew up He might overthrow his kingdom; so he gave orders that all the little children in Bethlehem who were two years old and under, should be killed. This he did, hoping to kill Jesus among them. But God had told Joseph, who was the husband of Mary, the mother of Jesus, to take Jesus and Mary away to a place of safety, so that he escaped from this wicked king's cruelty.

Joseph took Mary and Jesus to Egypt, and there they stayed until Herod died. Then the angel of the Lord appeared to Joseph again in a dream, and said, "Go back to the land of the Israelites now, for they that tried to kill the babe Jesus are now dead." So he went back, and they lived in a city called Nazareth.

Joseph was a carpenter, and when Jesus grew older He learned to be a carpenter too. He grew in wisdom and goodness, and was loved by all who knew Him. When He was twelve years old His parents took Him to Jerusalem, and there they lost Him for some time. When they found Him

NAZARETH.

He was in the Temple talking to the learned doctors, who were amazed at His wisdom.

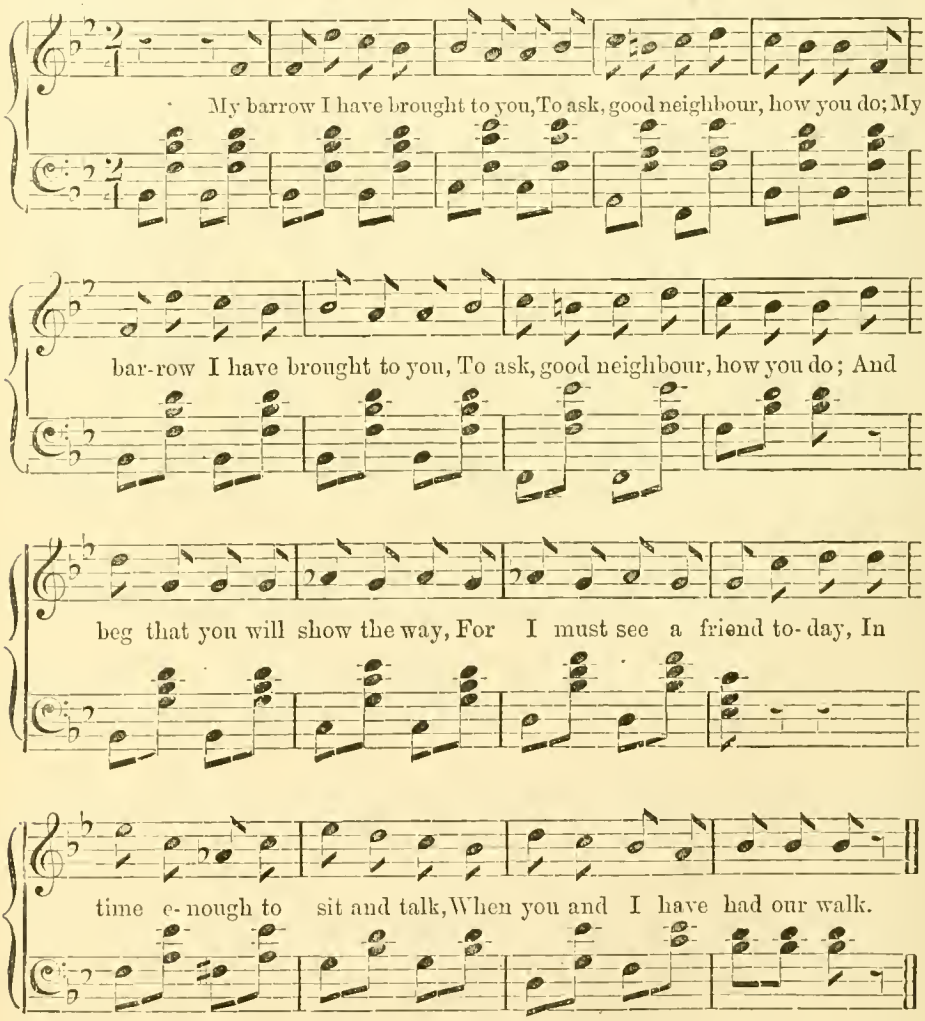
When Jesus grew up to be a man He preached in all the cities, and healed many sick persons, teaching them to love and fear God, to keep His commandments, and do what was right in His sight.

KINDERGARTEN GAMES AND SONGS.

X.—THE WHEEL-BARROW.

A SINGLE line is formed; the children then face to the right (or left). As soon as the song begins, the first child stoops down, thrusting his hands out behind him like the handles of a barrow; his neighbour holds them, and they then start off and march round the room, making the circuit once whilst the song is played. As the music recommences a second couple start, and so on until all are in motion.

The importance of this game is very much greater than might be supposed. The object is to exercise muscles which seldom receive proper development in childhood.


My barrow I have brought to you, To ask, good neighbour, how you do; My
bar-row I have brought to you, To ask, good neighbour, how you do; And
beg that you will show the way, For I must see a friend to-day, In
time e-nough to sit and talk, When you and I have had our walk.

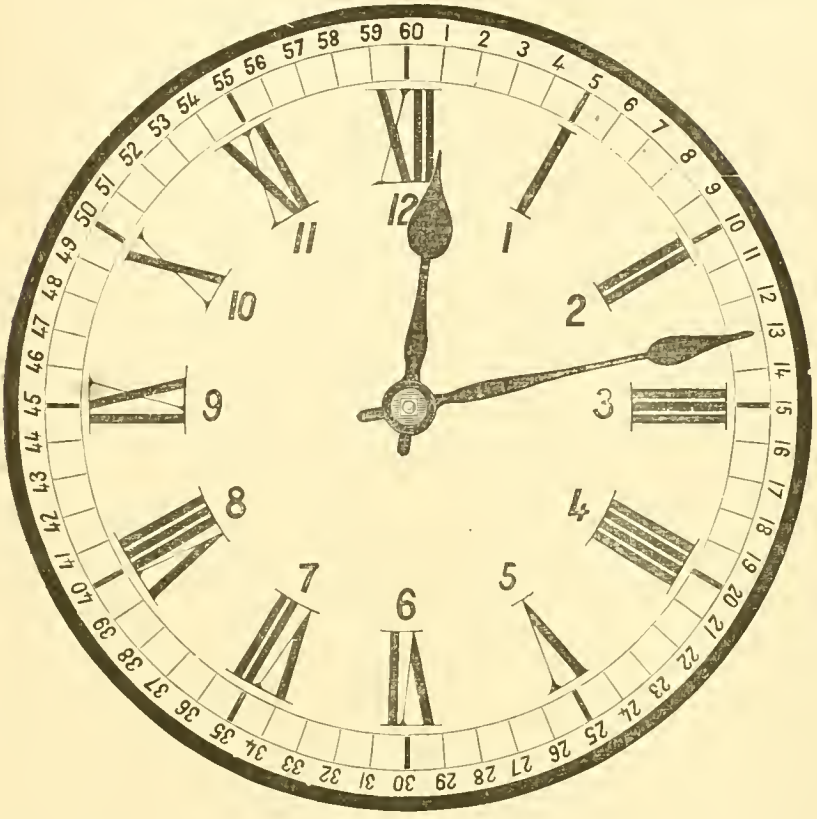
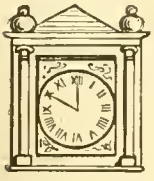


FIG. I., THE CLOCK.

HOW TO TELL THE TIME BY THE CLOCK.



DO you know how to tell the time by the clock? No. Then you must learn. You will find it very easy.

Can you read the figures on the face of the clock? No, you say, they are different figures from those you have seen. But here is a picture of a clock face with the easy figures that you know placed against those that you do not know.

Now these figures, 1 to 12, mean *hours*. Count them,—one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve. That is right. Do you

ask why there are twelve hours on the clock? I will tell you. It is because there are twelve hours in a day and 12 hours in a night, and the short hand moves slowly round the clock face once every twelve hours and points out each hour as it passes by.

WHAT THE HANDS ON THE CLOCK ARE FOR.

You see that there are two hands, one long and one short—now the short hand points to the hours, while the long hand points *over* the hours to the little strokes beyond. These little strokes are minutes, and there are sixty minutes in an hour. So while the short hand is moving slowly from one hour to another the longer hand is moving much more quickly all round the clock's face. Do you understand this?

Remember, the short hand points out the *hours* and the long hand points out the *minutes*. Now let us have a few examples. In the picture, Fig. 2, you see the short hand is at XII. (twelve) and the long hand points over I. (one). Now remember that the short hand points out the *hours*, therefore the *hour* is twelve, but the long hand points out the minutes, and if you turn to the big clock on the other page and count, you will see there are *five* minutes between the XII. and I., therefore we say the time is five minutes past or "after" one.

Now for Fig. 3. In this picture we see the short or hour hand is close to I. and the minute or long hand points over III. If we turn to the big clock we find that the minutes at this place are 15. Therefore we say that the time is 15 minutes past

I. (one). And you must know that in ordinary conversation fifteen minutes past any hour is called *a quarter* past, that is, a quarter of an hour—because 15 is a quarter of 60; therefore, we say that the time of the clock in the Fig. 3 is a quarter past *one*.

FIG. 2.

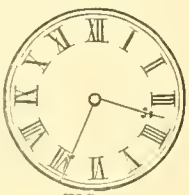


FIG. 5.

In the Fig. 4 you see that the short or hour hand is almost mid-way between II. and III.; still it is nearer to II. than to III., and as the long or minute hand is at 25 minutes we say that the time is 25 minutes past two.

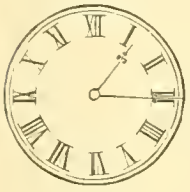


FIG. 3.

But in Fig. 5 the long or minute hand has passed the 30 minutes, or half hour, and the short hand is nearer to IV., therefore we say the time is 25 minutes to four, or else that it is 35 minutes past 3. In ordinary conversation we generally express it in the former way, though on railway time bills, &c., you will see it marked the latter way.

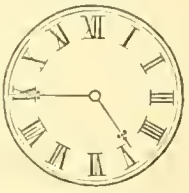


FIG. 6.

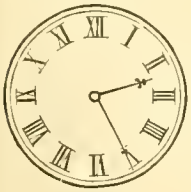


FIG. 4.

In the same way the time on Fig. 6 is a quarter to five, or 45 minutes past four, the long or minute hand being 15 minutes off from 60 minutes, which would complete the hour, and the hour hand being near to V. And in Fig. 7 the time is 5 minutes to six, or 55 minutes past five, the long or minute hand being 5 minutes off from the completion of the hour, and the short or hour hand being on VI. Of course when the long hand gets to the 60

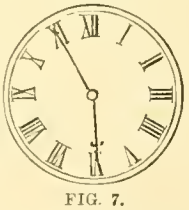


FIG. 7.

minutes then the hour is complete, and by looking at the hour hand we see which hour it is. Thus, suppose the hour hand were at VIII. (eight) and the minute hand over the XII., that is, pointing to the 60, then we should say it was eight o'clock, that is, eight hours in the morning or evening, whichever it might be.

FIG. 8, SECONDS' HAND.

Therefore, you must remember that the short or hour hand, points out the hour, and the long or minute hand points out the minutes past or to the hour.

In this picture, Fig. 8, we see the seconds' hand, which is placed on many watches. Just as an hour is divided into 60 minutes, so a minute is divided into 60 seconds, and this little hand goes round from 60 and back again while the long or minute hand is going from one minute to another on the big face of the clock.

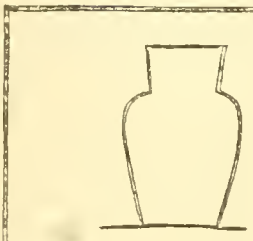
Now you ought to learn the following by heart:

There are 12 hours in a day.
There are 12 hours in a night.
There are 60 minutes in an hour.
There are 60 seconds in a minute.
The long hand points out the minutes "to" or "past" the hour.
The short hand points out the hours.
15 minutes are "a quarter past."
30 minutes are "half past."
45 minutes are "a quarter to."
When both hands are on 12 it is 12 o'clock, and if 12 in the day time, it is called *noon*—at night it is *midnight*.

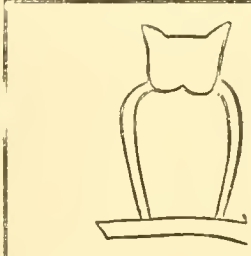
Try to tell the time daily, till you can do so easily.

COMICAL DRAWING LESSONS.

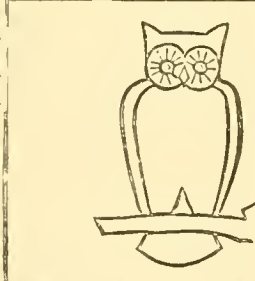
NO. IV.—HOW TO DRAW AN OWL.



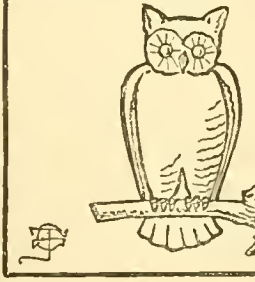
Sometime you may find
In the woods on a tree
A something which looks
like a vase.



Sitting straight on the branch,
Now what can it be
Away up in that
funny place?



Come nearer, an Owl with
great eyes, you will see,
Wide open and staring
at you,



But while the sun shines
He's as blind as can be,
So he says to each visitor
Hoo!!

GRAMMAR IN FUN.

THE PARTS OF SPEECH IN RHYME.

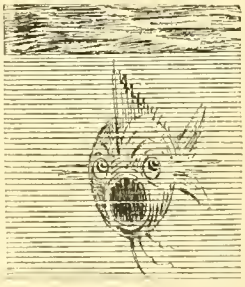
You can soon learn these Rhymes, if you are not a dunce,
And our good Parts of Speech, you may know them at once.

A *Noun* names a person, a place, or a thing:

As *William*, or *London*, or *sceptre*, or *king*.

What the Noun may be like, does the *Adjective* tell:

As a *bright*, *sunny* morning, a *deep* and *dark* well.



A *Verb* is to do, or to suffer, or be:

He *flies* and *is followed;* it *swims* in the sea.

The *Pronoun* we use in the place of a Noun:

Tom fights, and *he* conquers;
Sam slips, *he* falls down.

How the Verb does its duty,
the *Adverb* will tell:
John fought *long* and *bravely;*
he sang *loud* and *well.*

If we mean one or any, the
Article will say:
A man, any man; but *the* day,
one sole day.

Prepositions are words, the
Nouns put before:
By the bridge, *in* the barrow,
or *over* the moor.

Conjunctions our words and
our sentences join:
Pull fast, *but* keep steady;
the Thames *and* the
Boyne.

Interjections are words that
call out with a cry:
As *Ha!* the great spider—
Oh! look at his eye.

I.—MR. NOUN;

OR THE

HISTORY OF THE WORD FAMILY.

A Noun names a person, a place, or a thing:
As William, *or* London, *or* Sceptre, *or* King.

MR. Noun Substantive was a very fine fellow. He belonged to a large family, including all the great *names*. There were the *Proper Nouns*, who were very proud people and gave themselves great airs because they had particular names, such as Samuel, James, Maud, Mary, and others. But the *Common Nouns* were not thought nearly so much of; they were a much larger branch of the family, and had only such common names as horse, dog, cat, cow, village, labour, &c. Well, now, these nouns had some very remarkable folks for friends, called Adjectives. But I will tell you about these on the next page.

Nouns are either Proper or Common.

PROPER.

Proper nouns are the names that belong to one separate person or thing, as 'John,' because John is a separate person.

John.	Edith.	London.
Richard.	Kate.	Paris.
Tom.	Florence.	New York.
William.	Lucy.	Brighton.

COMMON.

Common nouns are those which are given in general to all things of the same kind, as—

River.	Boy.	Calf.
Mountain.	Girl.	Candle.
County.	Woman.	Teapot.
Man.	Child.	Plough.

Nouns are either of the Singular or Plural number.

SINGULAR NUMBER.

The singular number means *one*, as—

Table.	Mouse.	Goose.
Chair.	Foot.	Knife.
Dog.	Ox.	Church.
Man.	Tooth.	Child.

PLURAL NUMBER.

The plural number means more than one.

Tables.	Mice.	Geese.
Chairs.	Feet.	Knives.
Dogs.	Oxen.	Churches.
Men.	Teeth.	Children.

The plural is usually formed by adding *s* to the singular, as in the first three of the table of words above; others are, however, irregular, and you must learn them; and those which end in *ch*, *s*, *sh* or *x* require *es* in the plural, as *brush*, *brushes*.

Nouns are of the Masculine, Feminine, or Neuter Gender.

MASCULINE. (*Males.*)		FEMININE. (*Females.*)		NEUTER. (*Things without life.*)	
Man.	Earl.	Woman.	Countess.	Stone.	Table.
Boy.	Master.	Girl.	Mistress.	Box.	Bread.
Lion.	Brother.	Lioness.	Sister.	Top.	Salt.
Duke.	Uncle.	Duchess.	Aunt.	Net.	Tea.

II.—MR. ADJECTIVE.

What the Noun may be like, does the Adjective tell:
As, a BRIGHT, SUNNY *morning, a* DEEP *and* DARK *well.*

AMONG the friends of Mr. Noun Substantive were some remarkable folks called the Adjectives. They were looked up to a good deal because they were people of *quality*: but this was very strange, as they were of no importance at all unless they were joined in some way to one of the family of Nouns Substantive. Even the best among them, such as *good*, *clever*, *great*, *sweet*, were not valuable until they were joined to a Noun. Thus you can see at once that the Noun, *man*, becomes much better by being joined to the Adjectives *clever* and *good*, and being made a *clever*, *good* man: and that the Noun *pudding* is all the better for the Adjective *sweet*, which makes a *sweet pudding* of him. So we find the use of the Adjectives is to describe the qualities and properties of the Nouns.

ADJECTIVES ARE EITHER POSITIVE, COMPARATIVE, OR SUPERLATIVE.

POSITIVE.

As Adjectives express the qualities and properties of Nouns, they must vary in their ending to express the *degrees* of the quality or property. Thus, one tree may be *high*, but another is *higher*, while a third is *highest* of all. The simple word, therefore, is called Positive, the next Comparative, and the third Superlative.

POSITIVE.	COMPARATIVE.	SUPERLATIVE.
Wise.	Wiser.	Wisest.
Big.	Bigger.	Biggest.
Hot.	Hotter.	Hottest.
Warm.	Warmer.	Warmest.
Cold.	Colder.	Coldest.

COMPARATIVE.

For forming the second degree of comparison, which is called the Comparative, the first rule is that *er* is added to the Simple word, as *tall—taller*, but when the last letter is *d*, *t*, or *g*, and a single Vowel comes before them, the consonant is doubled, thus: *red—redder*. When the simple word ends in *e*, then *r* alone is added, as *large—larger*.

SUPERLATIVE.

For forming the third degree of comparison, which is called the Superlative, the first rule is that *est* is to be added instead of *er*, as in the second degree: as Positive *rich*, Comparative *richer*, Superlative *richest*, and when the simple word ends in *e*, *st* alone is added, as *large—largest*.

There are some Adjectives, however, which cannot be reduced to rule, and form their degrees of comparison irregularly, thus:

POSITIVE.	COMPARATIVE.	SUPERLATIVE.
Good.	Better.	Best.
Bad.	Worse.	Worst.
Little.	Less.	Least.
Much.	More.	Most.

III.—MISS VERB.

A Verb is TO DO, *or* TO SUFFER, *or* BE :
He FLIES, *and* IS FOLLOWED ; *it* SWIMS *in the sea.*

NOW, it so happened that not far from the house of Mr. Noun, lived a charming lady named Miss *Verb*. The family to which this lady belonged was also a very large one, and there was a great difference in their characters. For instance, there were the *Active Verbs*. These were always at work ; they were the verbs *to do ;* thus their names were—to *grind*, to *leap*, to *spin*, to *sew*, to *plough*, to *study*, to *learn*, and so on, and they all had some object in what they did. For instance, the active verb *grind*, ground knives ; the active verb *learn*, learned a lesson ; and so on. Some Verbs were of a quiet, passive nature. They were the Verbs who *suffered ;* they did not act. These were called *Passive Verbs ;* while there were others again, called *Neuter Verbs*, which expressed *being ;* sometimes they acted, but seemed to have no object beyond *themselves* in what they did. Among these were the Verbs, to *sleep*, to *kneel*, to *stand*, &c.

ALL VERBS ARE ACTIVE, PASSIVE, OR NEUTER.

ACTIVE VERBS, express action ; *i.e.*, tell us what a person *does*.	PASSIVE VERBS, express an action received or endured :	NEUTER VERBS, express *being* or a state of being, as
To love.	To be loved.	To look.
To strike.	To be known.	To sleep.
To raise.	To be followed.	To sit.

VERBS HAVE PERSON, NUMBER, TIME OR TENSE, MOOD OR MODE.

PERSON.	NUMBER.	TIME OR TENSE.	MOOD OR MODE.
The Verb has three persons, and must agree in person with the Noun or Pronoun, which is spoken of as doing, being, or suffering anything. Thus we say—	Verbs only alter their endings in one or two cases to express number, but when these alterations occur it is most necessary to use them. Thus we say—	The Verb has variations to express the *time* of an action, whether it is in the present or the past, or in the future.	The Moods of Verbs are the different modes or manner of expressing an action or state of being. There are four,
I *write*.	Tom writes.	PRESENT TENSE :	THE INFINITIVE :
Thou *writest*.	Not	I write, or am writing.	To write.
He *writes*.	*Tom write ;*	PAST TENSE :	THE INDICATIVE :
We write.	but	I have or had written.	I write, have written, or will write.
You write.	Tom and his Sister write.	FUTURE TENSE :	THE SUBJUNCTIVE :
They write.		I shall or will write.	If I write.
			THE IMPERATIVE :
			Let me write.

IV.—MR. PRONOUN.

The Pronoun we use in the place of a Noun:
Tom fights, and HE *conquers; Sam slips,* HE *falls down.*

IN addition to the Adjectives, Mr. Noun had some very great friends named The Pronouns. Eight of them, named the Personal Pronouns, were particularly good friends of his, and he often sent them out to appear for him. And just now, when he thought of asking the Miss Verb, whose name was *To Love*, to marry him, he sent these Personal Pronouns to speak to her about him. The names of these useful friends were—I, THOU, HE, SHE, IT, WE, YOU, and THEY. And all of them went to Miss Verb and asked her if she would marry their friend Mr. Noun. "I, Madam," said the first, "can promise you every happiness;" "THOU, Madam," said the second, "wilt be sure to love him;" "HE will certainly be a good husband to you," said the third; "WE can assure you," said THEY all, "that HE is worthy of you. HE keeps the very best company; and some very desirable Adjectives are always staying with him, and in marrying him you will meet with a *good* man, a *clever* man, a *pleasant* man, and an *agreeable* man."

ALL PRONOUNS ARE PERSONAL, RELATIVE, DEMONSTRATIVE, OR INDEFINITE.

PERSONAL.

Personal Pronouns stand in the place of names of persons. There are three kinds: the First, the Second, and the Third persons.

SINGULAR.

First: I.
Second: Thou.
Third: He, She, or It.

PLURAL.

First: We.
Second: You or ye.
Third: They.

RELATIVE.

Relative Pronouns relate to some Noun or Pronoun which has gone before it in the sentence, as, The man *who* passed by just now was running.

Who, Whose, Whom } Used when speaking of persons

Which, That } Used when speaking of things.

DEMONSTRATIVE.

The Demonstrative Pronouns point out or demonstrate the person or thing to which they refer, as, *This* cake is nicer than *that*.

SINGULAR.

This.
That.

PLURAL.

These.
Those.

INDEFINITE.

The Indefinite Pronouns are those which do not express their objects in a very definite manner, as *any* thing will do.

Any.
None.
Some.
Each.
Other.
Every.
Either.
Many.

V.—MISS ADVERB.

How the Verb does its duty, the Adverb will tell:
John fought LONG *and* BRAVELY *; he sang* LOUD *and* WELL.

WHEN Miss Verb heard the proposals of the Personal Pronouns, she said, "I am very much obliged to you for the trouble you have taken on your friend's behalf, and I will freely consent to marry him on one condition—that he admits my friends the ADVERBS on an equal footing with his friends the ADJECTIVES. These ADVERBS are very dear friends of mine, and are to me what the ADJECTIVES are to him. When we have them always about us we shall be able to love *truly*, to live *usefully*, to pass our time *happily*, to work *cheerfully*, and I hope to prosper *continually*. The Adjectives will also derive benefit from these friends of mine, the Adverbs, as they will make a good man a *very* good man."

THERE ARE FIVE KINDS OF ADVERBS.

TIME.	PLACE.	ORDER.	QUALITY.	MANNER.
Now.	Here.	First.	Well.	Especially.
Presently.	There.	Second.	Very.	Particularly.
Soon.	Where.	Third.	More.	Thankfully.

VI.—MISS ARTICLE.

If we mean one or any, the Article will say:
A *man, any man; but* THE *day, one sole day.*

NOW, while the Pronouns had gone to see Miss Verb, Mr. Noun had been considering what presents he should send her if she agreed to his proposals. And so he called on three little people named *Articles* to seek their advice. There were only three of these, and their names were *A*, *An*, and *The;* and when he had asked them, one said he should give Miss Verb "*a* beautiful gold brooch;" another said "*an* excellent gold watch;" and the third said "*the* best book in the world."

ARTICLES ARE EITHER DEFINITE OR INDEFINITE.

DEFINITE.

There is only one Definite Article. It is the word,— The.

This word is used when you wish to point out one particular thing, as Bring me *the* book, or, Do not touch *the* dog. When you hear me say this you know I mean one particular book or dog; do not forget that *the* is *the* definite article.

INDEFINITE.

There are only two Indefinite Articles. They are,— A, an.

These are used when we do not wish to point out any one thing in particular, as, Bring me *a* book. *An* is used when the next word begins with a vowel or *h* that is not sounded, as, Bring me *an* egg or *an* apple. This sounds much better than to say, Bring me *a* egg or *a* apple.

VII.—MASTER PREPOSITION.

Prepositions are words, the Nouns put before:
By the bridge, IN *the barrow, or* OVER *the moor.*

SO Mr. Noun took the advice of the Articles and bought the handsome presents they suggested. Then he called in the aid of some more little people called the *Prepositions*, who said that the presents should be wrapped *in* nice paper, and made *into* neat parcels, and given *to* proper messengers, who would take them *to* Miss Verb.

LIST OF PREPOSITIONS.

Above	Among	Beside	Except	On	Till
About	At	Between	For	Of	With
Across	Before	Beyond	From	Over	Within
After	Behind	By	In	Round	Without
Against	Below	Down	Into	Since	Under
Amid	Beneath	During	Near	Through	Upon

VIII.—MR. CONJUNCTION.

Conjunctions our words and our sentences join:
Pull fast, BUT *keep steady; the Thames* AND *the Boyne.*

MR. NOUN was of course very delighted at the answer brought back from Miss Verb by the Pronouns, and he agreed to her request that the Adverbs should live with them when they were married. And so great preparations were made for the wedding. At last the day came, and they went to church, where Mr. Conjunction joined them together in the "bonds of holy matrimony." Mr. Conjunction's occupation was to join words and sentences together.

CONJUNCTIONS ARE EITHER COPULATIVE OR DISJUNCTIVE.

COPULATIVE.

These Conjunctions join words and sentences together which express the same meaning, as, You *and* I talk.

And	For
If	Because
That	Since
Both	Therefore
Them	Wherefore

DISJUNCTIVE.

These Conjunctions join words and sentences together which express some opposition of meaning, as, You talk *but* I act.

But	Though
Or	Unless
Nor	Notwithstanding
As	Neither
Than	Yet

IX.—MASTER INTERJECTION.

Interjections are words that call out with a cry,
As, Ha! *the great spider;* Oh! *look at his eye.*

THE gay wedding between Miss Verb and Mr. Noun delighted a number of worthy people, and particularly the little boys and girls of the neighbourhood. These were standing on the pavement as the smart carriages passed by, and uttered such exclamations as Ha! Oh! &c., to express their pleasure. There were several of these little *Interjections*, but they were capable of expressing a good deal, though they were so small: they could express the feelings of joy, sorrow, surprise, and pain, by means of uttering little words, though it is the tone of voice in which they are uttered which tells as much as anything the feelings they express.

So Mr. Noun and Miss Verb were married, and as the dear old story-books say, "they lived happily ever afterwards." I think, perhaps, this was because they had such good Adjectives and Adverbs to live with them.

Now, as there will be no use in giving you a table of Interjections, here are—

A few Examples of the Parts of Speech.

ARTICLE, ADJECTIVE, AND NOUN.

A good man.
A large cake.
An excellent apple.
The long grass.
The bright sun.
The rough sea.

NOUN, VERB, ADVERB.

Tom plays well.
Emma sews badly.
John runs fast.
Flowers fade quickly.
Birds sing sweetly.
Larks fly high.

PRONOUN, VERB, PREPOSITION, NOUN.

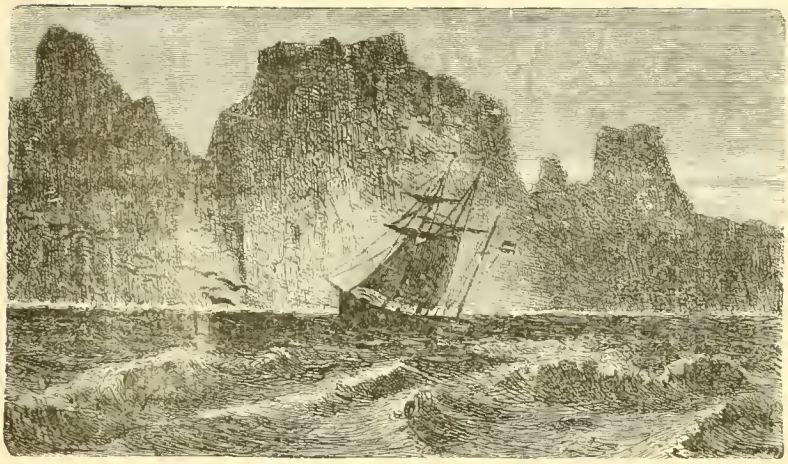
He went to school.
She sits at home.
They run down steps.
I came from York.
You play with Jack.
We walk between trees.

INTERJECTION, VERB, CONJUNCTION, VERB.

Oh! stay, and rest.
Ah! walk, but talk.
Ha! come, then play.
Alas! dead, and gone.
Ah! go, yet return.

Now point out the parts of speech in these sentences:—

I have come from London.
You have written a letter.
Thou hast broken a glass.
I shall be sorry to go.
She plays at chess.
Robert spins his top.
Do not climb the tree.
The sun is the source of light.



THE NORTH CAPE.

[The North Cape is the most northerly point of land in Europe. It is 970 feet high, and is in the island of Mageroe, on the coast of Norway. A great many fish, principally cod fish and herrings, are caught off the coast of Norway.]

GEOGRAPHY.

A LITTLE CHAT ABOUT EUROPE (*continued*)—NORWAY AND SWEDEN.

POLAR BEAR.
A very large and fierce animal living in the northern parts of Sweden and Norway, and also in other of the very cold parts of the earth.

THESE countries lie in the north-western part of Europe, and form one kingdom under the king of Sweden. A range of mountains, called the Kiolen Mountains, run between them; but besides these Sweden has no mountains. It is level, and noted for its extensive iron mines. Norway is mountainous. The winters are long and cold; the summers warm but short. Stockholm is the capital city of Sweden, and Christiania the capital of Norway. Stavanger and Drontheim are also important towns.

DENMARK.

Denmark lies to the south of Sweden and Norway, and is separated from them by a portion of the Baltic Sea. The surface of the country is low and flat, and in some places embankments called *dykes* are raised to keep out the sea. The city of Copenhagen is the capital. The people are called Danes.

A LITTLE CHAT ABOUT ASIA.

The word Asia means *Eastern Land*, and it is the name of that great division of land on the surface of the earth that lies to the East of Europe. It is very, very large, and comprises numerous countries which are under very different governments.

It is bounded on the north by the Arctic Ocean, on the east by the Pacific Ocean, on the south by the Indian Ocean, and on the west by the land of Europe and Africa.

The Himalaya Mountains are in Asia; they are the highest in the world. The rivers of Asia also are very large, but not so large as the biggest rivers in America. From Asia we get tea, cinnamon, pepper, camphor, and spices; gold, diamonds, and pearls are also found; while in the thick forests of the Southern part, fierce beasts, such as the tiger, live. The elephant and camel are also found in Asia.

There are three distinct kinds, or races, of people in Asia: the Caucasian, or white race; the Mongolian, or yellow coloured people; and the Malayan, or brown race. Mohammedanism and Buddhism are the principal religions.

Now for a little talk about each of the countries in turn.

SIBERIA, OR ASIATIC RUSSIA.

The Ural Mountains, the Ural River, and the Caspian Sea divide Siberia from Russia in Europe. Siberia is often called Asiatic Russia, because it belongs to Russia. In the north, it is intensely cold, and people who have to live there suffer greatly. Russia sends her prisoners there as a punishment.

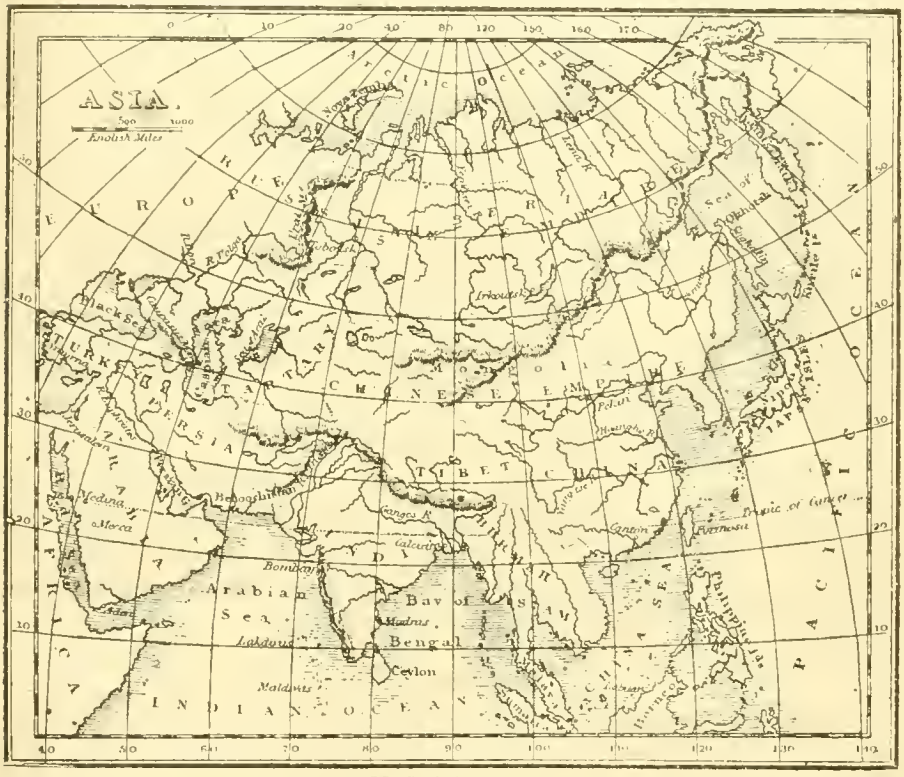
There are several rivers flowing into the Arctic Ocean; these are, the Lena, the Obe, the Yenesei, and the Kolina. On the banks of these rivers the soil is good but not much cultivated. There are also many large plains called *steppes*.

Gold, silver, and platinum are found in the Ural and Altai mountains, but the chief trade is in furs.

The chief town in the south is called Irkoutsk, while Tobolsk in the west is the chief place of commerce. The principal lake is Lake Baikal, which is 350 miles long. The Sea of Okhotsk is on the eastern side, while the north-eastern part runs out into the peninsula of Kamtschatkha, which also belongs to Russia.

THE GREAT EMPIRE OF CHINA.

China lies to the south of Asiatic Russia. It is a very large country, and on the north-east is the Sea of Okhotsk; then comes the Sea of Japan, and the Yellow Sea; and then the Chinese Sea; south of it are Burmah and India. With its possessions, indeed, it covers nearly as much space as Asiatic Russia; so these two countries together occupy nearly three-quarters of all Asia. But while there are 360



MAP OF ASIA.

millions of people in the Chinese Empire, there are only eight millions of people in Siberia.

Thibet is part of the Chinese Empire; it is ruled by the high-priest of Buddha (Buddhism being the religion of the empire); Chinese Tartary, ruled by chiefs of various tribes, and Corea, ruled by a native prince also belong to China. The capital of China proper is Pekin. Other chief cities are, Nankin and Canton; in Thibet, Thassa; in Chinese Tartary, Kashgar; in Corea, Kingkitas.

No doubt you know that tea comes from China; but you do not know that 250 million pounds of tea are drunk in the Empire every year, and that nearly as many are sent away for tea-drinkers abroad. You must know, too, that the most beautiful silk comes from China. The Chinese people are very clever; they knew about the compass, and about gunpowder, and about printing, several centuries before those wonderful things were known in Europe. The two principal rivers are the Hoang-ho, and the Yang-tse.

JAPAN.

Japan islands, lying between the Sea of Japan and the North Pacific Ocean. The largest islands are, Niphon (containing the chief cities, Yeddo and Yokohama), Sikokf, Kiusiu, and Jesso. These islands altogether only measure a quarter of a million of square miles, but they hold 40 millions of people. They are very ingenious, very painstaking, and very anxious to learn all the best of European ways. Various beautiful Japanese goods are brought over to England. They are made of silk and porcelain and paper.

TARTARY, OR TURKESTAN.

Several khans, or emirs, divide this country between them; the chief khanats, or possessions of a khan, being Khiva and Bokhara. The Sea of Aral is at the east; Lake Balkach is at the west. Independent Tartary is also called Turkestan. Samarkand and Merv are important cities.

PERSIA.

The native name for Persia is Iran, which you will remember when you hear that the capital is Te-iran, or, as you will see it spelt, Teheran. At the south of Persia is the Persian Gulf. Other chief places are, Astrabad, Ispahan; and Tabreez up there under the shadow of the Caucasian Mountains, near that part of Asiatic Russia where Tiflis is, and Mount Ararat.

AFGHANISTAN AND BELOOCHISTAN.

Afghanistan and Beloochistan are wild and savage countries lying next to India, and Cabool is the principal city; it is on a river of the same name, and you will see Herat, Candahar, and Kelat. At the south is the Arabian Sea.

ARABIA.

It is divided into three chief districts: El Hedjaz, or Nedjid, Yemen, and Oman. In ancient times the districts used to be called Petræa, Felix, Deserta; that is Stony, Pleasant, and Desert, according as the country really was. Native sheiks govern it, though it nominally belongs to Turkey. The capital is Mecca, where Mahomet was born; other chief places are, Medina, Muscat, Sana, and Mokha. Aden, on the straits of Bab-el Mandeb, belongs to England. Coffee comes from Arabia.

ASIATIC TURKEY.

This district includes several provinces; in fact the whole of the country between the Black Sea and the Mediterranean. It is the most western country in Asia, and is the eastern portion of the Turkish Empire, being known in history as Asia Minor and Syria. The Holy Land, or the land of Palestine, where Jesus lived when He was upon the earth, and where the Israelites dwelt for so long, is in Asia Minor. It now belongs to Turkey in Europe. Jerusalem, Bethlehem, Galilee, and Damascus are the chief towns. The River Jordan and the Dead Sea are in Asiatic Turkey. Smyrna is the chief sea-port, and is considered the capital.

INDIA.

There are many states and districts included in the general title India. There are the three presidencies, Bengal, Bombay, and Madras; also Scinde, with the river Sinde or Indus, running right through it; the Punjaub, meaning the Five Rivers; Burmah and Assam. The principal towns are Delhi, Cashmere, Lucknow, Allahabad, Benares, Patna, Mooltan, Hyderabad, Assam, Nepaul, Poonah, Bangalore, Seringapatam, Trinchinopoly, and Pondicherry. The capital is Calcutta on the Hooghly River; the principal river is the Ganges. The Himalaya or Snowy Mountains are at the north of India; the Sautpoor Mountains stand eastwards from the Gulf of Cambay, just above Bombay; the Western Ghauts run southwards, through Aurungabad and Mysore. The Queen is represented by a Viceroy, who is an Englishman, and who has numbers of English officials under him, such as judges, secretaries, &c., as well as a large detachment of the English army.

RUNNING HOME TO DINNER.

[Mamma has eight apples to divide among these four children after dinner; how many would there be for each? *Two.* Therefore we say divide 8 by 4, and 2 is the answer.]

PICTORIAL ARITHMETIC.

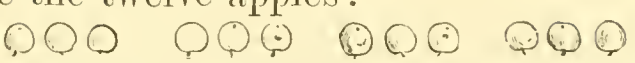
DIVISION.

HERE ARE THIRTY APPLES TO BE DIVIDED AMONG SIX CHILDREN; HOW MANY ARE THERE FOR EACH? *FIVE.*

WE have now come to the last of the four great rules in Arithmetic—Division.

Suppose you have twelve cubes or apples on the table, and you want to divide them equally among four persons, that is, you want to give the same number to each, how would you set about it? You would, I suppose, give one to each, and then another, until all were gone, and you would then find you had given three to each.

Here are the twelve apples:

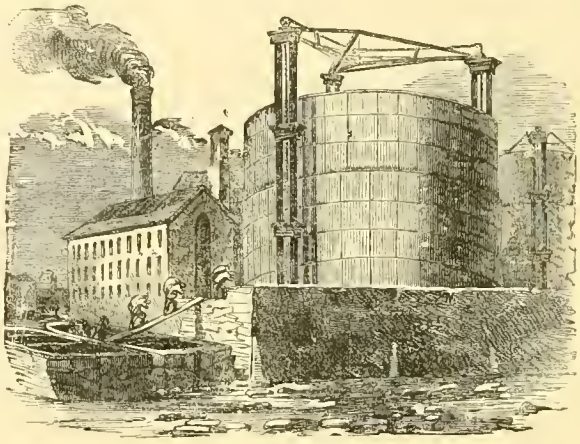


So we find there are just four 3's in twelve, as each of the four persons get the three apples. Here is the same thing again in figures; we call it a little Short Division sum. 4)12 You see Division, therefore, is *dividing* 3 *out* several things among a number of others so that each shall get the same number.

In fact Division may be considered a concise form of subtraction. For instance, there are four cubes on the table; now, I wish to give one to each of four children. I give one to you—and to you—and you—and you. I have, as you see, *subtracted* four times, have I not? Very well, there is no need to do that always; there is a shorter way called *division—dividing by four*. Now, here are four cubes standing in a row. How often can I take away or subtract *one* from them? Why, four times to be sure. Now bring those cubes back again here and I will make a fresh row of them. Here are six cubes: I want to *divide* equally among three children; how many must I give to each? Well, you see it comes to *two* each: that is to say, three into six go *twice*.

Now tell me—meantime working out the answers with your cubes—how many twos are there in six? How many threes are there in six? —how many in nine?

Now tell me this: "An upholsterer sent six chairs to a house; two were wanted in each of the sitting-rooms: how many were there?"

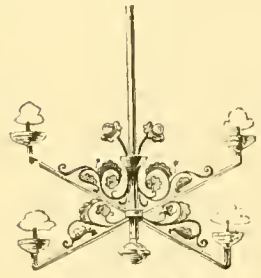


GAS WORKS.

[In every town and nearly every village in England there is now a place which is known as the "gas works." It is here that the coal gas is made for lighting up the mills, shops and houses. The large iron cylinders are called "gasometers," and contain the gas which has been made at the works. From these gasometers the gas is conducted along pipes under ground into houses and shops and factories.]

CHEMISTRY FOR CHILDREN.

LESSON V.—COAL GAS.



GAS FLAMES.

AT the close of the last lesson I promised to tell you of a little experiment which will show you that it is the carbon containing vapour which burns in a candle flame.

Upon blowing out a candle you know that the vapour rises from the wick in a stream, and smells most disagreeably. Have a lighted match ready, and just after blowing out the candle apply the light to the stream of vapour a couple of inches from the wick. The vapour lights; flame runs along its whole length, burning it up until the wick is reached, when it again takes fire.

Now, having talked of the candle flame, let us talk about the gas flame. You know that gas comes in pipes from the gas works. Have you ever been able to look inside the gas works? If so, maybe you have seen a number of workmen, without their jackets and waistcoats, and their sleeves rolled up high above the elbows, very busy throwing coal into the retorts. Each retort hurls out a body of flame every time a

workman sends in a spadeful of coals. The men do their work quickly, perspiring with the work and heat; and soon each retort has been tightly closed up with an iron lid, and the coal within it is now heated in the retort, which is a sort of long red-hot oven filled with coal. You are now watching one of the first stages in the making of coal gas.

It would be too hard, however, for you to follow all one could say about this making of coal gas at the gas works; so to make the thing as easy as possible, we will make some coal gas at home, in the very simplest of ways, and then we can return to consider what they do at the gas works.

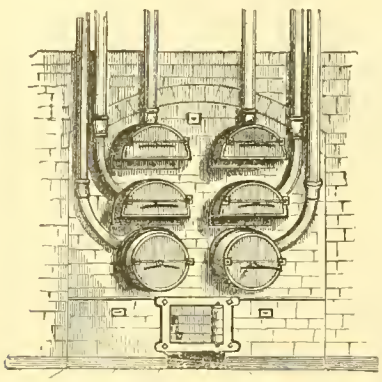
MAKING COAL GAS AT HOME—AN EASY EXPERIMENT.

To make coal gas at home you require nothing but a common clay pipe, a few bits of coal, and a bit of clay. After having put the coal into the bowl of the pipe, so as to fill it, the mouth of the pipe is closed with clay. After the clay has dried you may put the bowl of the pipe with its contents of coal among the red-hot cinders of the fire, with the stem coming outside between a couple of bars of the fire-range. The cap of clay is now baked hard, and the coal within is heated nearly to redness without the chance of burning, because no air can get to it. Soon after the pipe is placed in the fire a stream of vapour comes out of the end of the pipe stem. One cannot light this. In less than four or five minutes the kind of gas coming out has altered, for now the outcoming stream takes fire when a light is brought near it, and it burns a long time with a bright flame.

What has happened to the coal within the pipe? Upon breaking the pipe and examining its contents it is found that there is nothing left but one mass of cinder or coke. Coke is left when coal is burnt in the grate to give heat, but it is evident that this coke in the pipe is not the result of burning the coal, because no air could get to it. No, there has been no burning here, and the coal in the pipe has only undergone a sort of roasting in an air-tight and red-hot oven, with only one opening, the pipe stem, by means of which gases could escape. Such a peculiar roasting of coal gives rise to a good number of substances which are all mixed together, and we call the mixture coal gas, just as we call the mixture of oxygen

and nitrogen we breathe, air. It is necessary to get rid of some of the things in coal gas before it is fit to burn in a house, and when these things have been removed then it is valuable for lighting-up purposes. Our great grandfathers, in their old-fashioned wigs and knee-breeches, knew that coal gas could be burnt so as to give out light, but they were a long time before they could be led to use it in house, workshop, and mill.

Let us now go back to the gas works. We have seen the men throwing coal into the retorts. These retorts were red hot, and when filled with coal were shut up. Now each retort being surrounded by a furnace, just as our pipe bowl was surrounded by fire, the coal in it is roasted, as it was in our pipe, and the gases formed pass off by an iron tube at one end and there is nothing left behind in the retort but coke. This gas which comes from the roasting coal is made to bubble through water, and by that means it loses some of the things in it which are not wanted, such as ammonia and tar; after this it is passed through "condensers," "scrubbers," and "lime-purifiers," and at last, when fit for lighting-up purposes, it is stored in the gasometer.



DOORS OF THE RETORTS.

The most important thing in coal gas is Marsh gas. We have already said that it is found in coal pits sometimes, where it is named *fire damp*. You know that it is a compound containing carbon and hydrogen, and when it burns or explodes the carbon goes to form carbonic acid, which the miner christens *choke damp*, and the hydrogen forms water. Thus the marsh gas is destroyed in burning, and its elements go with oxygen to form other compounds. As you now look up at the gas jet when it is burning you will know that carbonic acid and water are being continually formed there.

Another very important thing in coal gas is Olefiant gas, which is a compound of carbon and hydrogen, with much less hydrogen in it than marsh gas has. It is this gas which makes the flame so luminous.

There are a great many other things in coal gas, but you need not trouble yourself at present by thinking of more than these two, the most important, Marsh gas and Olefiant gas.

You know of course that the coke which is made in the retorts is sold as fuel, and the tar too is sold for making *aniline*, a substance from which those beautiful violet, indigo, magenta, and other dyes are now-a-days made.

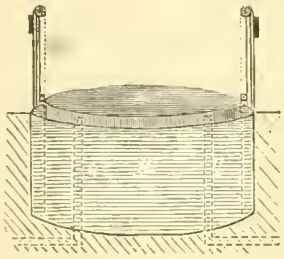


FIG. A.

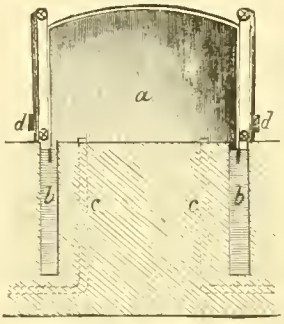


FIG. B.

PICTURES OF GASOMETER, WHEN EMPTY, AND FULL OF GAS.

[When the gas is made it passes to the gasometer; this is the store-house where the gas is kept to supply the pipes *c c*, which are connected with those laid down under the streets. The gasometer is made of plates of iron rivetted together. The lower part of this cylinder (see fig. B) is received into a circular deep channel cut in the ground (*b b*), and filled with water, so that the gasometer, *a*, which is suspended and balanced by means of the chains and weights, *d d*, may be raised or depressed at pleasure. When the gasometer is quite down, the inside of its top, *a*, rests on the ground (fig. A); when the gas enters, it raises it up till the lower edge is but a few inches below the water, and is prevented from rising higher by frames which support it; when some of the weights, *d d*, are removed the huge cylinder, *a*, slowly sinks down and forces the gas through the tubes, *c c*, to be burnt by thousands of consumers. About four cubic feet of gas is produced from every pound of coal used.]

Taken altogether, then, coal gas making is an important industry, and the importance of it is seen more strikingly when one considers the amount of gas burnt for lighting-up purposes. For lighting London alone hundreds of thousands of pounds worth of gas is consumed every year, and when in the cold days of winter a fog rises from the Thames and compels people to light up their shops and houses, the fog costs in gas alone thousands of pounds!

When, therefore, you see the gas lit up in your house, I hope you will be able to remember something of what I have told you, and how many processes it passes through before you can burn it quietly at your gas jet.

JESUS CHRIST BLESSING LITTLE CHILDREN.

SCRIPTURE STORIES.

X.—JESUS AND HIS DISCIPLES; ALSO SOME OF THE WONDERFUL WORKS WHICH JESUS PERFORMED.

JESUS PREACHING THE SERMON ON THE MOUNT.

JESUS chose twelve disciples—not from among the rich, learned men—but mostly from the poor fishermen whom He found by the sea-side; and He taught them to preach and perform miracles, so that they loved Him, and knew Him to be the Lord Jesus Christ who had come to be the Saviour of the world.

It happened once that as Jesus went through the different cities preaching, a great multitude of

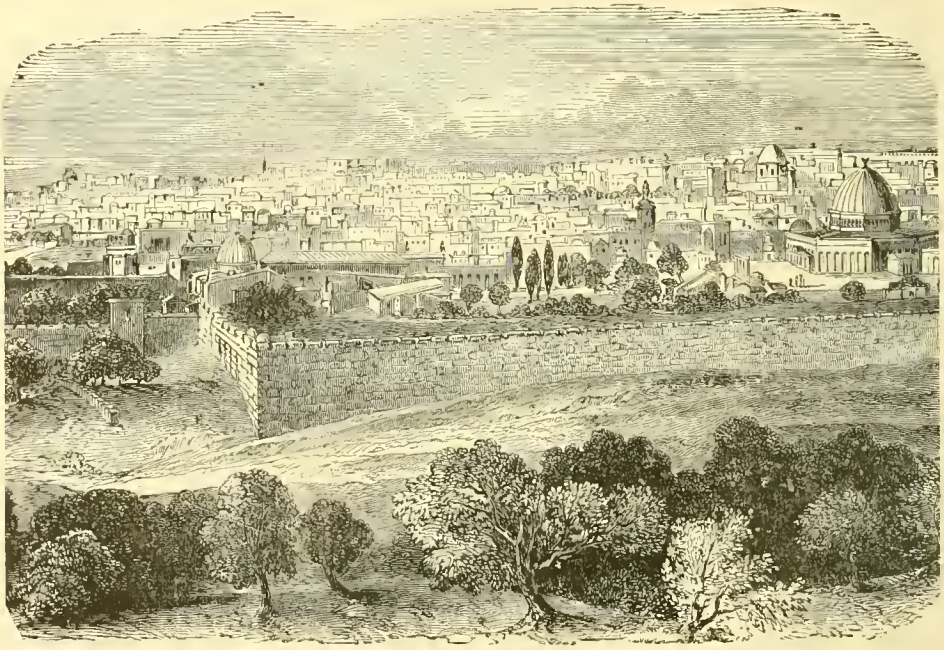
people followed Him, and He took them upon a mountain and preached the beautiful sermon, which is written in the fifth, sixth, and seventh chapters of Matthew, which one day, when you are older, you will like to read. After coming down from the mountain He healed a leper, cured the sick servant of a centurion, and the mother of Peter's wife who was ill of a fever. All these things made the chief people of the cities angry and jealous, and they sought to kill Jesus, but God took care of Him, for He had much work to do before He died.

Sometimes Jesus was so poor that He had no resting place by night, and He often suffered from hunger and thirst, but He never complained, cheering and comforting His disciples with kind words when they grew disappointed and disheartened.

A ruler whose name was Jairus, had a dear little daughter whom he loved, and she fell ill and died. The ruler had heard of Jesus, and how good, and kind, and powerful He was, so he came to Him and begged that He would raise his little daughter to life again. So Jesus went to her bedside and taking her by the hand said "Maiden, arise!" and she arose immediately, to the great joy of her father, and the wonderment of all the people.

One day, Jesus, wishing to be alone, had gone into a desert place, but as soon as the people knew it they followed Him in a great crowd, and He healed all their sick. And when the evening came the disciples told Jesus that He had better send them away into the town to get something to eat,

for the desert was a long way from any shops. Jesus asked His disciples what food they had to give to the multitude, and they told Him there were but five loaves and two fishes. Then Jesus took the food, and by a miracle made it enough for all the people, who numbered a great many thousands, so that they were all satisfied. One night when the disciples were in a small ship, there was a



JERUSALEM.

great storm, and they were very frightened, but Jesus stretched out His hand and rebuked the storm of wind and rain, and it instantly hushed, and all was peace again. Jesus was very fond of little children, and once when the women of one of the cities brought their children to Him, He gathered them in His arms and put His hands upon their heads, and blessed them.

GOING TO SCHOOL IN THE SNOWY WEATHER. OH, HOW COLD IT IS!

[We feel the touch, or warmth, or coldness of anything by means of the numerous minute nerves that are spread out up to the surface of the inner skin and are covered by the outer skin, so that when you are warming your hands, and spreading their palms before the fire, the heat from the fire passes through the outer skin to get at the nerves. This outer skin, however, is very necessary, as without it the warmth of the fire would give pain instead of pleasure.]

SOMETHING ABOUT MY OWN LITTLE BODY.

LESSON IV.—MORE WONDERS ABOUT THE SKIN; ALSO, FEELING, TASTING, AND SMELLING.

A HAIR LARGELY MAGNIFIED GROWING OUT OF THE SKIN

WE have not done yet with the skin, you see; indeed the skin is so important that we might talk to you for a long time about it.

It is from the skin that hairs grow. Each hair may be looked upon as a sort of little tree, deriving its living from the skin, just as a proper tree gets a great part of the things it lives on from the ground. A hair is formed out of the skin in a stricter sense even than the tree is formed out of the earth, and the same may be said of the nails, because both hair and nails are made out of the outer skin. Two little bags furnished with fat supply each hair with the grease it wants.

You remember that I told you in the last chapter about the little sweat tubes, and how the perspiration which comes from them is often evaporated. Now, when any liquid is made to evaporate, heat is, as a rule, used; thus the heat of the sun makes the water of the sea pass off largely as vapour, and it comes down again as rain; the heat of the fire makes the water in the kettle pass out of the spout as vapour; and the heat of the body or something else is required to make sweat pass off as unseen vapour. This is the secret of the fact that Chantrey was able to stand the heat of a room which would roast meat. The heat made him sweat greatly, and this heat was then used up in evaporating the sweat instead of roasting his body.

THE SENSE OF TOUCH IS IN THE SKIN.

You may have many a time seen some poor blind man reading a book by means of his fingers. The letters in the book were raised slightly, and such was his fineness of touch, that he could tell what each letter was, and could spell the word out where several letters were together, and so read it as if he had possessed sight. This shows how delicate touch may become.

This fineness of the sense of touch varies, however, in different parts of the body. This may be proved in the easiest manner possible. Take a fork with three prongs, and apply the points to the end of the long finger. You can feel distinctly that *three* points are being applied to the skin. Now, apply the prongs of the same fork to the back of the hand, say to the fleshy part between the thumb and first finger. The prongs of the fork feel like *one* sharp edge. The skin at the end and front of the forefinger is thus much finer in its sense of touch than the skin at the back of the hand.

The skin cannot be depended upon for telling with nicety how hot or cold anything is. Thus, for example, the idea one forms of the heat of water depends altogether on the state of one's hands. If your hands are cold and you put them into water, you may say that the water is warm, whereas another person with hot hands would say at once upon feeling the water that it was cold. Many a time, too, in cold Arctic regions, have men said that their fingers were burnt by touch-

ing the cold iron barrels of their guns; so that touch is not well able to tell between extremes of heat and cold, as well as not being able to tell small differences of heat.

THE SKIN IS ONE OF THE MEANS BY WHICH WE LEARN ABOUT THE WORLD, AND THE WONDERFUL THINGS IT CONTAINS.

When I feel anything, I am able by touch to tell whether it is hard or soft, solid or liquid, round or square, &c., and by touch alone I thus become possessed of many facts about it. The nose, tongue, eyes, and ears, each let in their share of news to the mind, for they are the other gateways of knowledge, and by their means one learns the smell, taste, appearance, and sound of a thing. With these five senses, man not only obtains knowledge, but supplies all his wants, and avoids the many dangers with which he is beset.

TASTING JAM.
Naughty Johnny to taste without leave.

Two of the senses, viz., taste and smell, are very nearly akin to touch. Taste, one may call the touch of the tongue, and smell, the touch of the nose. For when one touches something with the tongue, and perceives its peculiarity, one is said to taste it; and on the other hand, when the nose is brought near a substance so that particles flying off it can enter the nose and touch its inner lining, then one is said to smell it.

THE SEAT OF TASTE IS THE TONGUE AND BACK PART OF THE MOUTH.

These parts are covered with skin which is really a continuation of the skin of the outside of the body altered for its uses in the mouth. There is here, also, an outer and inner skin, the nerves of the latter having to be acted on to produce

the sense of taste. For a substance to be readily tasted, it must dissolve in the saliva, then a portion of it passes through the outer skin of the mouth or tongue to the ends of the nerves of the inner skin; the impression made on the nerves is then sent to the brain, and thus gives one the idea of taste. The sense of taste being mainly used by animals in their choice of food, its organ, the tongue, is placed at the entrance of the opening which leads to the stomach, so that if a thing be unfit to eat, one can at once refuse it before swallowing it.

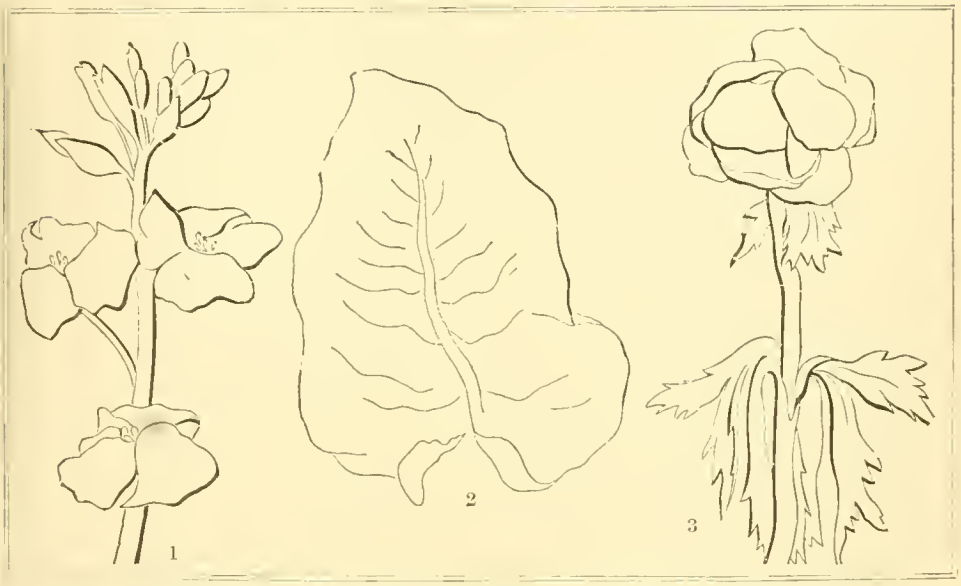
THE SEAT OF SMELL IS THE NOSE.

You would know this without being told, for when you want to smell anything, say, a bouquet of flowers, do you not take a sniff with the nose?

In taste, a solution of the substance has to rest on the tongue; in smell, very fine portions of the substance, much finer than dust, have to travel into the passages of the nose, and there come into contact with the skin to produce the sense of smell. Some idea of the fineness of the particles which hit the lining of the nose, is gained from the fact that the odour of a piece of musk may fill a whole room for years without the musk being altered so much in weight that one could tell it with a pair of scales. But all this time, waste of the musk has been going on, and particles of musk have been flying off it, so very very fine, that particles of ordinary dust are as boulders compared with them.

HOW TO MAKE AN ONION TASTE LIKE AN APPLE.

In tasting anything, the smell is sometimes taken into account, in forming an idea of its nature. Thus one would think that in tasting an onion, it could be taken for nothing else. It is not so, however. The taste of an onion may be mistaken for that of an apple, and in this way. Take a slice of onion freshly cut, and without letting Johnny see it, ask him to close his eyes and hold his nose (*i.e.* close the nostrils), while you let him taste something nice. Now touch the tip of the tongue with the onion, and ask him what it is. He will at once say it is an apple; and to be convinced that it is an onion, he must be allowed *to smell* as well as taste it.

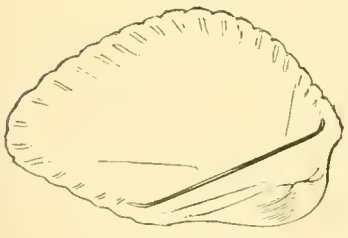


OUTLINES OF FLOWERS AND LEAVES FOR PRACTICE.

[1. Stem, flowers, and buds of the wall-flower. 2. Leaf of the Common Dock. 3. Stem, leaves, and flower of the Yellow Crowfoot.]

DRAWING LESSONS FOR THE YOUNG.

A LITTLE MORE DIFFICULT OBJECTS FOR PRACTICE.



AN OPEN SHELL.

WE were just going to begin drawing the pair of shells that fit together, when I started off to tell you a story or two. Perhaps that is one of the pleasantest parts of drawing, that you are not obliged quite to hold your tongue whilst you are doing it. It will not do to talk whilst you are saying lessons, or even whilst you are at your music, for you cannot listen to two things at a time, but you can listen to a story whilst you go on drawing. I do not think you can talk much yourself if you are taking all the pains you can to get your work right, but you can listen; and it is very pleasant, when a number of people are drawing together, if they can get somebody else to read them something which does not require any great attention.

These shells we cannot begin quite in the same way as the last, because it is not so easy to imagine a line across them;

but the open one has a straight line along one side, which may serve as a foundation to start from. We can imagine straight lines across to the further corners and then along the opposite side, and outside these straight lines we can draw our outline, which will consist of lines only slightly curved and turning round sharp at the corners. This will all require great care, for these irregular figures are more difficult than the fine sweeping curves. When this outline is finished, there is the inner line to be drawn lightly, and then to be dotted more firmly; and, lastly, the turned-up part of the shell beyond the straight line will have to be carefully put in, beginning with the outer line, and then the inner one will find its place easily between that and the straight. In this last we shall probably find it easier to draw the whole curve from one side to the other, and then rub out a portion and run it down to the point. In this way we shall get the curves on the opposite sides to fit to one another.

When we have got all the outline of this quite right, it will be necessary to go over it again and mark the outer lines more firmly.

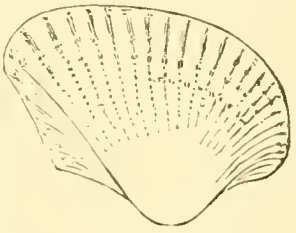
For if we put the lines in at first of the proper firmness, it may happen, and it is very likely to be the case, that there will be something wrong about them, and then in correcting them we shall either destroy the surface of the paper altogether or not get rid entirely of the wrong mark.

ALWAYS GET THE OUTLINE QUITE CORRECT FIRST,

And when all fits in properly, one part with another, go over it again, giving a proper depth to each line according to what it is intended to represent. If it is the line which marks off the object you are drawing from all around it, this must be firm and moderately dark; little divisions like the inner line of this shell should be lighter, though still firm; whilst the curve which separates the rough outer coating from the smooth white inside should be the finest of all. When the outline is finished it will be easy to mark the various little depressions that cause the irregularities in the edge.

When we have done the inside of the shell we may well try the outer half. The experience we have gained from the former will help us here. The straight line with which we

started in the former is not quite so clear at first sight, but it lies here, not quite straight as we see it now, and partly hidden behind the rising swelling of the centre of the shell. It will be well to begin with this as before, only we must have a space for the swelling to come through. Then we can mark where the corners must come, and so get in the general outline. When this is done we must look at it as a whole, and see if it seems right, and make the corrections before we go any further, for half the battle consists in being right at first. This being done, we can easily see where the corners come, to which the sides of the swelling portion run down, the upper one almost at the corner of the outline, the lower one about half-way along the side. The gap in the straighter side will help us a little, too, and then we must notice how far outside it has to go. After this the curved lines that run round, nearly parallel with the outer edge, will be easily drawn from one line to the other, and the others higher up will follow. All this should again be examined to see that it fits in properly, and then it may be put in firmly. Notice, however, that in drawing the markings of the shell, you must not use the fine point of the pencil with which you marked out the outline, but you want to use a broad, worn point held slopingly, not driven too much into the paper, but passed lightly over it, leaving a broad but not dark mark. When the rest is finished the markings of the shell crossing the above will be put in, nearly straight. With these it will be well to begin at the middle and to work towards the sides.

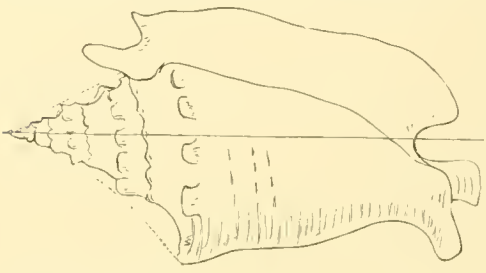


THE OUTSIDE OF THE SHELL.

HOW TO DRAW A STILL MORE DIFFICULT SHELL.

We may now go on to a more complicated shell; and remember this is the way—we must advance by degrees. It will not do to try to do too much at first. If you do simple things first, and do them well, when you get something that is more difficult you will learn to see the most important lines in it, and to draw them first, and to fill in all the harder parts afterwards. If you try complicated affairs at first you will be quite bewildered, and not know where to begin or how to do

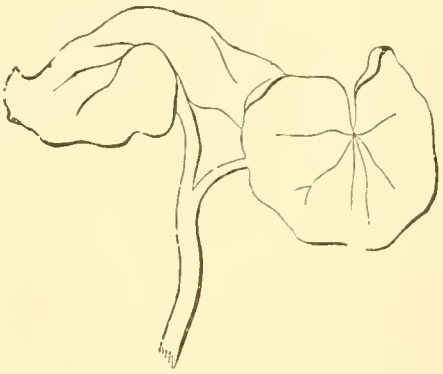
any portion satisfactorily; but looking at things that have only a few principal lines, you will get into a habit of seeing the principal lines even where there are a great many more to puzzle you. The shell we are now going to draw has much more complicated curves and all kinds of knots and irregularities about it.



We will begin in this case, as before, with the opening. You have now got into a habit of seeing the line across the shell, and you can judge where the flowing curves of the lip will cross this imaginary line; so you need no longer draw it, but only suppose it to be there. Next judge of the comparative distance above and below of the outline, and you can then put in the curves quite easily. Next, the curve of the lip, having the points where it begins and ends, and the spot where it crosses the middle line, will fall into its proper place. When this is done it may all be marked out with the proper depth of line; not a deep black mark dug into the paper, but a nice delicate line, giving a little more or less power according to the difference of the surface.

Now take the knobs and points. We can easily see the line from where the one lip cuts the other away to the point at the end of the shell. Mark off where the various curls cross this, all at different distances, six in all. Next, we must draw very lightly the longest of these lines, carefully judging how far it should go. That will give us the points on the outer curves, and we can draw the lower one of these, and a light line to the tip, giving the main line of the edge of the shell, but not attempting at present to put in all the little ins and outs. After this you draw the opposite end by noticing how far it is across from the point we first started from, where the two lips cut one another, to the corner almost immediately above it, and then dotting out the end of the shell itself. You may then draw the rest of the top of the shell and the point on the side nearest to you. You can then add the little bit behind. The lip below will be easy, because it runs at almost an equal distance from the other line all the way, and you

can easily see where it ends on the line which runs up to the tip. When all this is done you can go back to those lines running to the tip, and without at first rubbing out the faint line which shows their general direction, you can draw the true outline with all its ins and outs, taking care to compare them with distances you have marked in the centre of the shell for the lines of the curls. These curls should next be put in, and then you can go over the whole of the outline and rub out the mere guiding lines, excepting those of the curls, which must remain until you have put in all the markings, and then these may disappear, and each knob may be traced out clearly.



OUTLINE OF THE STEM AND LEAVES OF THE BURDOCK.

Now I dare say you will think that I have said a great deal more about this shell, and perhaps some of the others, than there was any necessity. Little people, I know, like to get on, but there is an old proverb, "Most haste, least speed;" and a very wise old man once said, "Stay a little, that we may make an end the sooner;" and that is just why I have stayed here.

When you come to draw large troublesome things, that look at first sight as if they would not go right, and you do not know where to begin with them, look at them as I have told you to look at the shells. Try and see lines across them from points that you cannot mistake, and note the distances on these lines. Then look for other lines that run in different directions. Sometimes you may find a great number of them; you need not always put them down on your paper, but you can imagine them there. But particularly notice how these lines slope towards one another, and how the real outlines slope towards them. It is the slope that the different lines take which will help you most to judge whether you have got the right distances or no. These slopes of the various lines, which are called *angles*, are the most important things to notice in drawing, and some day you will most likely find that they are most important in a great many matters besides drawing. So always notice *slopes or angles*.

JOAN OF ARC FIGHTING AGAINST THE ENGLISH.

THE HISTORY OF ENGLAND IN EASY LESSONS.

HENRY VI. AND THE WARS OF THE ROSES.

How the English lost their Possessions in France, and Joan of Arc led the French to victory; how the Wars of the Roses commenced; and how Henry was dethroned.

FINDING THE CROWN in a bush after the Battle of Bosworth—the last of the Wars of the Roses.

WHEN Henry V. died, his little infant son was not a year old; but the Parliament his wise father left, gave him good guardians, who took care of him and of his kingdom while he was little.

The French war was renewed, and the English were gradually driven out of France. Charles, son of the late king of France, was helped in this war by a girl called Joan of Arc, who put on armour, and who said that God had sent her

to fight against the English, and drive them out of France. At last the English took Joan—or, as she was called, the Maid of Orleans—prisoner, and, I am sorry to tell you, they burned her alive, because they said she was a witch.

THE WARS OF THE ROSES.

Now I have to tell you about some sad civil wars that took place in England, called the Wars of the Roses.

As Henry VI. grew up the people saw that he was a very weak man. Often he was so ill that he could not govern for himself, so the management of affairs got into the hands of his wife, Margaret of Anjou, who was not a wise woman.

So many people thought it would be better for the Duke of York to be king, and one day, when a number of gentlemen were walking and talking together in the Temple Gardens in London, one of them took the King's part, and said he was determined to defend King Henry and his family, and desired all who agreed with him to pick a red rose and wear it in their caps as a sign that they would defend the family of Lancaster.

Then those who thought it best that the Duke of York should be king, turned to a white rose-bush, and picking a white rose, placed it in their caps. And so the sad wars which raged in England between these two parties came to be called the Wars of the Roses, because the red rose was the sign of the Lancastrians, and the white rose was the sign of the Yorkists.

These wars continued for a long time, and each side won some battles, and committed many deeds of violence, until at last the Duke of York was able to march to London, and there, on the 4th of March, 1461, a great council proclaimed him king under the title of Edward IV.

EDWARD IV., FIRST KING OF THE HOUSE OF YORK.

But these sad wars continued for some years after Edward was made king, for the Lancastrians tried hard to put Henry on the throne again. But they were finally defeated, and Henry, who had been kept prisoner in the Tower, and his sons, were killed. So Edward was king without any rivals.

There is one very important thing to remember about the reign of Edward IV. besides all this fighting. What do you

think it is? Why, the Art of Printing was established in England. William Caxton set up a printing press at Westminster, and issued from it, in 1474, the first book printed on English soil. It was called "The Game and Playe of Chesse."

A few years after this, in 1483, Edward IV. died. I cannot say much good of him. He seems to me to have been a cruel and revengeful man, and too much taken up with his own pleasures to make a good king of England.

EDWARD V., THE LITTLE "ELEVEN WEEKS' KING."

The eldest son of Edward IV. was a boy of thirteen years when his father died. His uncle, Richard, duke of Gloucester, was appointed Protector until he should be old enough to rule. But the Duke of Gloucester was a very wicked man; he wanted to be king himself, and so while his boy-nephews, Edward V., and his brother, were happy, playing with their toys in the Tower, he did all he could to make the people proclaim him king. One night when the little princes were sleeping in the Tower, they were smothered by some wicked person, and their bodies buried in a great hole under the stairs. A long time afterwards some noblemen found their bones in that place.

RICHARD III., SURNAMED "CROOKBACK."

Although Richard had now got his desire by being king, yet he was by no means happy, because he had obtained his wishes by doing wickedly, and wickedness can never bring happiness. It is said, though I cannot tell you how far it is true, that Richard was one of the wickedest and one of the ugliest kings England ever had, and although he may not have been so bad as this, yet there is no doubt but that he was a bad man, and also very far from handsome. His body was stunted and deformed; one of his arms was withered, and his shoulders were humped, so that he was called "Crookback."

He was not king for a long time. The English people could not like so base a man, and already many folks began to think that a cousin of Richard, Henry Tudor, Earl of Richmond, who was a much better man, had also a far better claim to the throne than wicked Richard. Henry Tudor also was related to the old princes of Wales, who were Britons, and the Welsh were delighted to have him as king. His

mother was a member of the Lancastrian family, so that he was liked by the Lancastrian party, and it was thought that if he married Elizabeth of York, the sister of the princes who had been murdered in the Tower, the Yorkists would like him too.

And this is actually what took place. Henry Tudor landed at Milford Haven, on the first of August, 1485, and found

THE MURDER OF THE YOUNG PRINCES IN THE TOWER.

several thousands of soldiers ready to fight for him. Richard also collected an army, and a great battle took place at Bosworth, in Leicestershire, in which Richard was slain. After the battle, the crown was found in a hawthorn bush near the field, and was placed by Lord Stanley on Henry's head. Soon afterwards, Henry was made king, and as he married

Elizabeth, the Yorkists were satisfied, and England was happy and quiet again.

HENRY VII., FIRST KING OF THE HOUSE OF TUDOR.

Henry was a very wise king, but he had some great faults. One was his great love of money, and he often took unjust means to get it from his subjects. Two men called Richard Empson and Edmund Dudley used to help him in his extortions.

In the early part of his reign there were two disturbances of which I must tell you. A young man named Lambert Simnel pretended that he was a son of the Duke of Clarence, who was killed in the Tower, and that now Richard III. and his little cousins were all dead, he had the best right to be king. But at the battle of Stoke all his friends were defeated and Simnel was taken prisoner. The King treated him kindly, and made him a servant in his house. The next disturbance was of much more consequence. A young man, named Perkin Warbeck, said he was one of the princes who were supposed to have been murdered in the Tower. And many people believed him, and said he ought to be king. Perkin Warbeck did a great deal of mischief, but at last King Henry's army defeated him and took him prisoner. He was shut up in the Tower, but because he was a much more dangerous man than Simnel he was at last executed.

After this England was quite quiet for the rest of King Henry's reign, and the young men, not having any fighting to do, began to turn their attention to learning. It was in this reign that Christopher Columbus discovered America. He set out with ships from Spain on the 3rd of August, 1492, and a few years later an Englishman, Sebastian Cabot, sailed across the Atlantic and landed on that part of America now known as Labrador.

Henry VII. built a great palace at Richmond, and also added a beautiful chapel to Westminster Abbey, still known as Henry VII.'s Chapel. He also did a great deal to encourage trade and learning, but when he died, in 1509, few people seemed sorrowful for him, for he seems to have been a very hard, severe, and unloveable man.

CHARLIE SAILS HIS BOAT.

[In this sentence, the word *sails* is a verb, because it tells us what Charlie is doing.]

GRAMMAR.

V.—VERBS AND ADVERBS.

BABY IS IN THE CART AND IS PLAYING WITH THE DOG.

[In this sentence the words *is* and *is playing* are verbs, because they tell us what baby is doing.]

THE fifth part of speech is called a *verb*. Now verbs are words which express what creatures and things do, or will do, or have done, or is done to them, or their state of being—thus, in the sentence "The dog runs," *runs* is the verb, because it tells us what the dog is doing—he is running; "The boy is hurt," *is hurt* are the verbs, because they tell us that something has been done to the boy; and, lastly, "The stone lies in the brook," *lies* is the verb, because it expresses the state of being or existence of the stone.

You see in every sentence we must use a verb, for a verb shows what the *noun* or the *pronoun* in the sentence does, or what is done to it. Now find out the verbs in the following sentences: "The cat mews," "A bird flies," "John has walked home," "Go to bed," "The cat has drunk all the milk."

You should copy out these sentences upon your slate and underline the verbs.

There are three kinds of verbs, Active, Passive, and Neuter.

An active verb is one which says what the noun in the sentence does, as "The cat mews," *mews* is an active verb, showing what the cat does; but in the sentence "The cat is beaten by John" the verb *is beaten* shows what the cat receives or endures, and so the verbs which express what is done to a thing are called Passive verbs. Active verbs, then, express what a thing *does*. Passive verbs express what *is done* to it. Neuter verbs are those which express simply the state of being or existence of a person or thing, as "Baby sat in his swing."

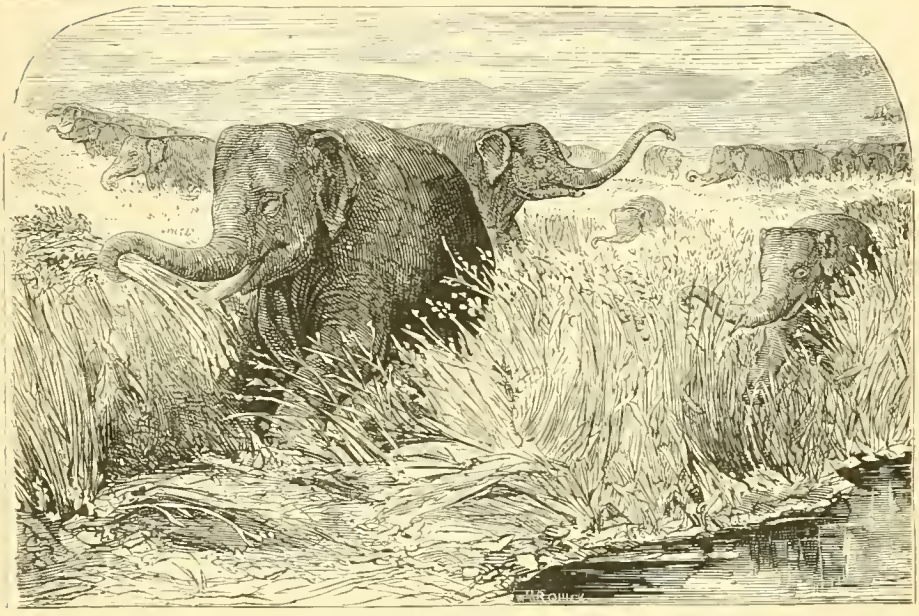
Again, in the sentence "Tom strikes the cat," *strikes* is an active verb, because it shows what the noun Tom does, but if we say "The cat is struck by Tom" the words *is struck* are called passive verbs, because they show what poor pussie receives from Tom.

There is a great deal more to be learned about verbs, as you will find out by-and-bye, but I must now tell you about a part of speech that is very closely connected with verbs—I mean adverbs.

WHAT IS AN ADVERB?

The sixth part of speech is called an Adverb, and it is so called because it is added to the verb; adverbs are, in fact, words which are to verbs something like what adjectives are to nouns. You will remember that you learned about adjectives in your last Grammar lesson; and just as adjectives are words added to nouns to tell us something about them, so adverbs are words added to verbs to tell us something about them. In the sentence "The cat runs quickly" the word *quickly* is an adverb, because it tells us how the cat runs. Again, in the sentence "The boy sits quietly" the word *quietly* is an adverb, because it tells us how the boy sits—he sits quietly.

There are many kinds of adverbs, and with several of them their *addition to* or connection with the verb is not always so clear as in the sentences I have just given you. Thus in the sentence "The boy goes to school sometimes" the word *sometimes* is the adverb, telling us *when* the boy goes to school. Thus you see there are adverbs of *time*, which tell us when a thing is done, as well as adverbs of *manner*, which tell us how it is done. There are also adverbs of *place*, of *order*, and of *quality*; but you need not trouble about them until you are older.



ELEPHANTS IN RICE FIELDS.

[Rice is one of the most important and useful of plants. It grows in many parts of the world, and affords the principal food for nearly one-third of all the men, women and children on the earth. In India they call the rice fields *puddy* fields. Elephants are very fond of rice, and they often break into the fields and eat great quantities.]

STORIES OF THE PLANTS AND FLOWERS.

STORY VI.—ABOUT SOME USEFUL PLANTS AND TREES.

GUTTA-PERCHA TREE.

A useful plant which yields a juice similar to the India-rubber or Caoutchouc plant, though without its elastic properties. Gutta-Percha is much used for the manufacture of telegraph cables.

IN the last story our talk was about extraordinary plants and trees. Many trees are extraordinary because of their age. A man may live until he is threescore years and ten, or even until he is a hundred years old, but what think you of a tree becoming more than a thousand years old! The oak has been known to reach the vast age of fifteen hundred years, while the Baobab and Taxodium are said to reach the extraordinary age of five thousand years. Such trees have seen great changes on the earth's surface, and have outlived nations, having watched their rise and decline.

It is seldom that a full-grown plant is

of no use at all; there is generally something either in fruit, seed, leaf, stem, or bark, that may be used for some purpose or other. The stems of large trees are sawn into planks at the saw mills, and are then used for a variety of building purposes. Some that are of extra hardness, like the oak, have been used in times past for building our ships of war. And there are others, like logwood, fustic, and camwood, from abroad, which are ground up or chipped in this country to dye things with. Coming to bark, or the outside covering of the stems of trees, we see that the bark of the oak is largely used for tanning leather, and the bark of the cork trees of Portugal is used for a number of purposes.

SOMTHING ABOUT THE PLANT FROM WHICH WE GET BREAD.

Wheat is one of the most useful of all plants, for from wheat we get the flour to make bread. There are different kinds of wheat, and there are also other plants which somewhat resemble it in affording a grain which is of great benefit to man, as the rice plant, the oat from which oatmeal is made, maize or Indian corn, and barley. All these are staple articles of food in various parts of the world.

Do you know how bread is made from wheat? I will tell you. First, the farmer ploughs up the ground to make it fit for sowing. Then the wheat seed is sown. By-and-bye little green blades, like grass, sprout up out of the brown earth, and the rain and the sun make them grow until they are as tall as a little girl or boy. Then the "ear" shows itself at the top of the wheat stalk, and these "ears" are full of little grains of wheat, which are soft at first. But when ripe, the stalks are cut by the reaper and bound in bundles called sheaves. The sheaves stand in the sun for a few days until the wheat is hard and dry, and then they are taken away and built up into a "rick." By-and-bye the wheat is beaten, or, as it is called, "threshed" out of the ears, and the little coverings of the wheat grains called chaff are winnowed away. Then the grains are taken to the mill and ground up into flour, and of that flour nice loaves of bread are made.

Barley and oats are grown in much the same way, only we do not make loaves of oatmeal. We usually eat oatmeal as porridge or in the shape of oat-cakes. Some people make

bread of barley, but we do not do so in England. Maize grows in America, and is eaten there in a variety of ways. Rice grows in India, China, Java, and in a number of hot countries. It supplies the principal food of nearly one-third of the men and women on the earth. It is grown in very wet ground, and the rice is usually sown in rows in the bottom of trenches, which are about one and a half feet apart.

SOMETHING ABOUT THE PLANT WHICH GIVES US INDIA-RUBBER.

Out of the stem of the sugar-cane a juice is procured from which sugar is made. Out of the stem of certain trees living in America and East India a milky juice may be obtained which turns into India-rubber when one heats it in the sun or over a fire. Your rubbing out India-rubber that you use for erasing lead pencil marks, has been made from tree juice of this kind. For a long time people were very much puzzled with India-rubber; they could not tell how it was made. It used to come to this country from South America in the shape of bottles, birds, or other curious forms. At last some Frenchmen who went to South America about a hundred years ago found out the secret. In the Brazils they saw the very trees out of which the milky juice was made to ooze, by cutting rings round the trunk into the bark. A name by which India-rubber is very often known is *caoutchouc*, pronounced *koo-chook*.

Among useful leaves are those of the tobacco plant; we mean useful in so far as this, that tobacco is a most important article of commerce. The doctors say that smoking is a bad and unhealthy habit, and it is a curious circumstance that savages commenced it. Europeans did not know how to smoke when Columbus set off with the intention of discovering a new world. Accordingly when he and his men landed on the island of Cuba great was their surprise to see savage men puffing smoke out of their mouths and nostrils. They were smoking cigars of their own make, which were simply leaves of the tobacco plant rolled up and encased in sheaths of Indian corn. The tobacco plant is about eight feet high, and its leaves are about two feet long. The leaves are of a light green colour, and in making tobacco for men to smoke they are taken and dried; then they are sprinkled with tobacco juice and are laid in heaps to darken. They are now cut up finely to make the ordinary smoking tobacco.

KINDERGARTEN GAMES AND SONGS.

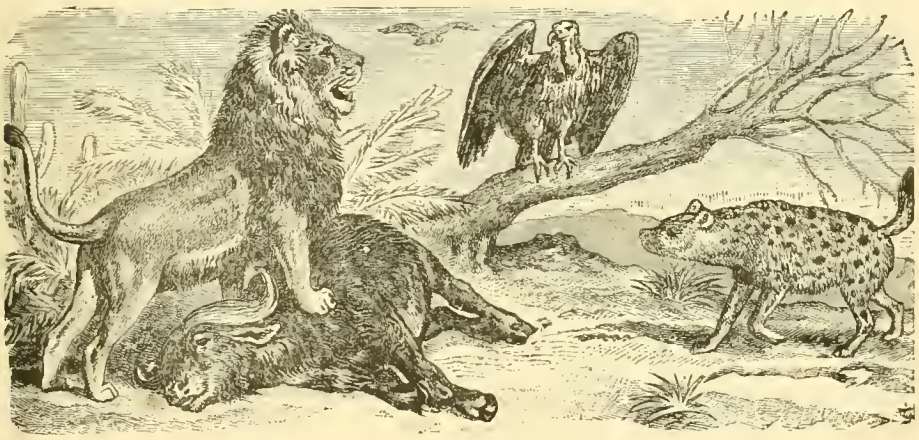
XI.—THE BEES.

SEVERAL small groups of children (formed in circles) represent the hives; raised arms, or a gap between two of the circle, are the door. Some of the remaining children represent bees, and some flowers. The bees fly off their hives, run about amongst the flowers, and return home.

2 Building cells of purest wax,
Work we never call a tax:
When white frosts are on the ground,
Not a bee is to be found.

3 A happy band around our Queen,
We work while winter snows are seen;
Nor fly abroad till joyous spring
Rays of light and blossom bring.

4 Floating o'er the jewelled ground,
Comes the welcome well-known sound
Of our softly murmured hum,
Hum, hum, hum, hum, hum, hum, hum.



SOME ANIMALS FOUND IN AFRICA.

[The Lion has just killed the Buffalo and is roaring over him. The Vulture on the tree and the Spotted Hyena underneath the tree will wait until the Lion has eaten enough, and then when he goes away they will pick the bones.]

GEOGRAPHY.

A LITTLE CHAT ABOUT AFRICA.

FANTEES, Natives of Africa.
The Fantees are a warlike tribe, living on the Eastern Coast of Africa, in the district between Cape Coast Castle, and the country of the warlike Ashantees.

AFRICA is that great division of land on the south of Europe. The Mediterranean Sea runs between them. Cape Bon (or the Good Headland) is the most northern point. Cape Lagullas, or Agulhas, and the Cape of Good Hope in Cape Colony, are the most southern points. Cape Verde (or the Green Headland) and Cape Blanco (or the White Headland) are the principal capes on the west, towards America; Cape Guardafui is the chief cape on the eastern side.

Longways, this Dark Continent, as it has been called, measures 5,000 miles; wideways, at its widest, it measures almost as much, namely 4,600; and nearly the whole of it lies in that hottest part of the world called, as you know, the Tropics.

There are 16,000 miles of coast in Africa. The north of it

is washed by the Mediterranean Sea, and the principal inlet or gulf on this side is the Gulf of Sidra, running right into Tripoli. The western coast, coming through the Straits of Gibraltar, has the Gulf of Guinea, containing the *Bights* (or Havens, or Harbours, the calm places) of Benin and Biafra. Going south from these there are the bays, although they may not be marked on your map, called Little Fish Bay, Great Fish Bay, Walrisch Bay, St. Helena Bay, Table Bay, False Bay. Turning the Cape of Good Hope, and going up again, there are Mossel Bay, Algoa Bay, Delogoa Bay, Sofala Bay; and then it overlooks Mozambique Channel, between Mozambique and Madagascar, and goes through the Straits of Bab-el-Mandeb to the Red Sea. The most important rivers are the Niger, the Zambesi, the Orange, the Senegal, the Gambia, the Congo, and the Nile.

EGYPT.

Egypt is watered by that celebrated river, the Nile. Alexandria is at the mouth of it; and Rosetta, Damietta, Ghizeh, where the pyramids are, and Cairo, a little way inland, are the chief towns. You will also see Suez. It is that isthmus which joins Africa on to Asia, and it is there where there is the famous Suez Canal. Till M. de Lesseps, the great French engineer, cut this channel, or water-way, through the sandy land, if a large ship loaded with goods wanted to go from Alexandria to Suez, it would have had to have gone all the way round Africa, which you have just been told is 16,000 miles; but now the same ship can go just through those 70 miles of sandy land, in the canal, and can be unloading itself again, in a few hours. The English people, particularly, make great use of this canal to send goods and troops and people to and from India. It saves about a month of time in every voyage.

The towns on the banks of the Nile are Thebes, Edfou, and Essouan.

Egypt is governed by a Pasha, or Khedive, but he is subject to the Sultan of Turkey.

NUBIA AND ABYSSINIA.

The Nile passes through Egypt into Nubia, and then into Abyssinia. Abyssinia has various chiefs or kings, each taking

a different district; but Nubia is subject to Egypt. In Nubia you will see Dongola, Berber, Khartoum; in Abyssinia you will see Gondar and Amhara.

NORTHERN AFRICA.

A large portion of the great desert of Sahara is in Northern Africa, and the north, or sea side of that, is Barbary, made up of the several states of Fezzan, Tripoli, Tunis, Algeria, and Morocco. Algeria belongs now to the French. Its capital is Algiers, a delightful spot, looking, on one side, towards Italy,

and on the other side towards Spain. Tangier is a northern point of Morocco, facing Gibraltar.

WESTERN AFRICA.

A great portion of the Western side of Africa belongs to the natives themselves, under their own petty kings, either quite independent or partly under submission to other powers. These portions are: Loango, Congo, Angola, Benguela, Ashantee, Dahomey, Liberia. Other parts now belong to various European nations. Thus Sierra Leone, Gambia, and Cape Coast with its Cape Coast Castle, belong to the English; Fort St. Louis, the Gold Coast, and Goree, belong to the French; El Mina and Axim belong to the Dutch; St. Paul de Loando, and St. Felipe de Benguela, they belong to the Portuguese.

SOUTHERN AFRICA.

This includes the land of the Hottentots; the land of the Kaffirs, with all their numerous tribes, the Zulus and others; the land of the Dutch Boers; and the British possessions called Cape Colony and Natal. The district called the Transvaal is here also. The chief places for you to remember are Cape Town, Port Elizabeth, Durban, and Pietermaritzburg. In all the southern part of Africa the climate is very warm. Geraniums grow wild, and many other tender flowering plants, which perish quickly here, are quite hardy there and grow in the open air. There are diamond fields at a few days' journey from the coast; and there are many ostrich farms quite near the principal ports. The English people who go to settle in South Africa employ the Kaffirs for their servants.

EASTERN AFRICA.

Eastern Africa may be said to begin at Cape Corrientes, and it goes right up to Cape Guardafui, opposite the island of Socotra and Arabia. The countries are Sofala, Mozambique, Zanzibar, Melinda, Magadoxo, and Ajan.

THE AFRICAN ISLANDS.

The largest of the islands round about Africa is Madagascar. It is a thousand miles long, and contains some five millions

of inhabitants. At present it is governed by its own sovereign. The Mauritius, Ascension Island, and St. Helena belong to England. The Canary Islands and Fernando Po belong to Spain. The Madeiras, Cape Verde Islands, Prince's Island, and St. Thomas belong to Portugal. Annabon is independent. Bourbon belongs to France. Socotra belongs to the Sultan of Muscat.

St. Vincent is the chief of the Cape Verde islands. Teneriffe, with its well-known Peak, is one of the Canaries, and its chief town is Santa Cruz (the Holy Cross). Funchal is the chief town of Madeira; James' Town of St. Helena; Port

GIRAFFES. GNU. KOODOO ANTELOPE. CROWNED CRANE.

SOME MORE ANIMALS FOUND IN AFRICA.

Louis of Mauritius. St. Helena is the island where the English kept the great Bonaparte a prisoner till he died.

CENTRAL AFRICA.

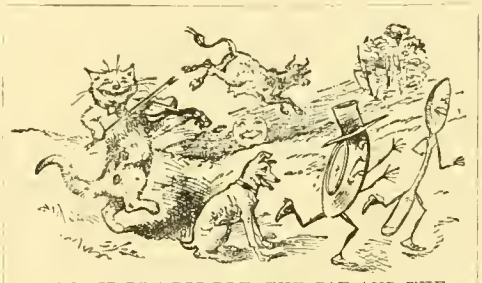
Much of this is unexplored country even yet, although many travellers have been into many portions of it. One portion is called the Soudan or Nigritia; another portion the Libyan Desert; a third portion the Sahara, or Great Desert. Timbuctoo is in Western Nigritia; Saccatoo in Eastern Nigritia. The words Nigritia, Niger (the river), and Negro (the people), are all taken from *niger*, the Latin for black, for most of the natives of Africa are black.

FIRST STEPS;
OR,
EASY LESSONS IN READING & SPELLING.

X.—MORE WORDS OF TWO SYLLABLES, ACCENTED ON THE FIRST.

sa-ble
sa-cred
sad-den
sad-dle
safe-ty
sail-or
sal-ad
sal-mon
san-dal
satch-el
sa in
sau-cer
sau-sage
scar-let
schol-ar
se-cret
sen-tence
ser-mon
set-ter
sha-dow
shat-ter
shep-herd

ta-ble
ta-ker
ta-per
tar-dy
tar-get



HEY DID-DLE DID-DLE, THE CAT AND THE FID-DLE.

tat-tle
tem-per
tem-pest
tem-ple
ten-der
ter-race
thim-ble
thun-der
thurs-day
tick-et

ti-ger
tim-ber
tin-der
trum-pet
trea-cle

tot-ter
tin-ker
tin-kle
tim-id
tip-pet
ton-ic
top-ic
tor-pid
tor-rent
tri-ple

ug-ly
ul-cer
ul-tra
um-pire
un-cle
un-der
up-land
up-per
up-right
up-shot
up-roar
up-ward
up-set
up-start
ur-ban
ur-gent
u-sage
use-ful
ush-er
ut-most
ur-chin
ut-ter

WORDS OF TWO SYLLABLES, ACCENTED ON THE FIRST.

va-cant
va-grant
val-ley
vas-sal
vel-vet
ven-der
ven-ture
ver-dant
ver-dict
ver-min
ves-per
ves-try
vi-car
vic-tor
vil-lain
vir-gin
vis-it
vix-en
vol-ley
vol-ume
vom-it
vor-tex
vo-ter
voy-age
vul-ture
vul-gar

wa-fer
wag-tail
wait-er
wal-let
wal-nut
wan-der
wan-ton
war-ble
war-like

BAA, BAA, BLACK SHEEP.

war-rant
waste-ful
watch-ful
way-lay
weep-ing
wel-fare
whis-per
whis-tle
wick-ed
will-ing

wind-ward
win-ter
wis-dom
wit-ness
wit-ty
won-der
wor-ship
worst-ed
wor-thy

wran-gle
wrap-per
wrath-ful
wrest-ed
wreck-er
wring-er
wrin-kle
writ-ing
wrong-ful
wry-ness

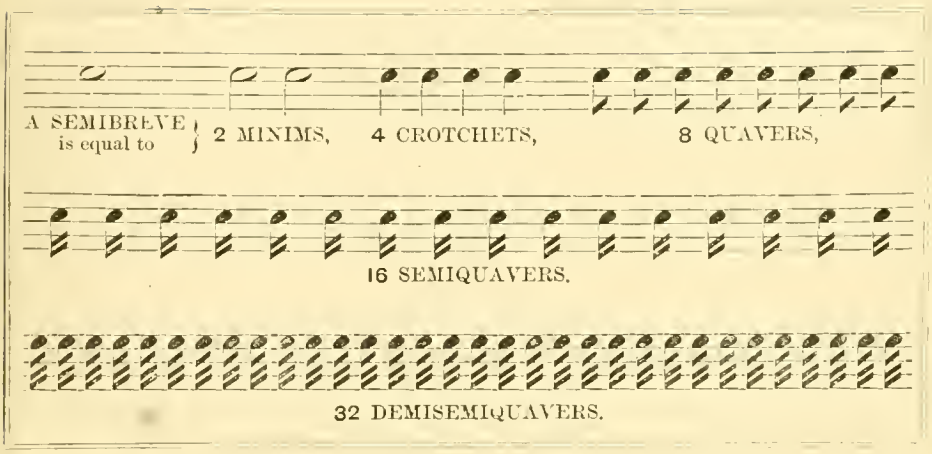
xan-thic
xe-bec
xy-lite

year-ly
yearn-ing
yel-ling
yel-low
yeo-man
yon-der
young-er
young-ster
youth-ful

za-ny
zeal-ot
zeal-ous
zen-ith
zeph-yr
zig-zag
zeal-less
zi-on
zinc-ous
ze-bra
ze-bu
zone-less
ze-ro
zy-thum

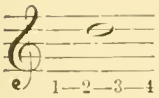
IN THE HAY-FIELDS.

In the sum-mer time, when the grass in the fields is long, the far-mer sends men to cut it down. Then it is turned a-bout in the sun-shine, until it is quite dry, when it is cal-led hay. Chil-dren have great fun with the hay. They of-ten cov-er one an-o-ther with it as they are try-ing to do to Bob-by in the pic-ture. The far-mer car-ries it a-way in a cart, and puts it in a great heap, and thatch-es it with straw to keep it dry till the win-ter.

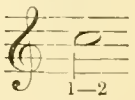


MUSIC AND SINGING.

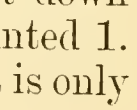
VALUE OF NOTES—*continued.*



A SEMIBREVE is worth four beats; that is to say, when you come to a note in music like this, you would press your finger upon the bird it represents, and count 1, 2, 3, 4, before you take your finger up again to play the next note. This is called holding a note down during four beats.

A Minim is worth only two beats; so that when you come to a note printed like this, 

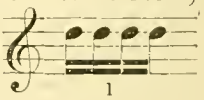
you would hold it down while you counted 1, 2. A Minim, you see, is just worth half a Semibreve; in other words, it takes two Minims to make the length and value of a Semibreve.

The Crotchet is worth just half a Minim, and a quarter of a Semibreve; so that when you come to a note like this, 

you would hold it down during one beat, or while you counted 1.

A Quaver is worth just half a Crotchet, so it is only

held down during half the time, or in other words, it is worth half a beat. There are two Quavers in a Crotchet, four in a Minim, and eight in a Semibreve; when, therefore, you come to notes like these, you would have to play two of them while you counted 1.

The Semiquaver is worth half a Quaver. There are sixteen Semiquavers in a Semibreve, eight in a Minim, four in a Crotchet, and two in a Quaver. A Semiquaver is worth just a quarter of a beat; so you would have to play four Semiquavers while you counted 1, thus: 

The last note in value is a Demi-semi-quaver. There's a long word for you! This note is worth half a Semiquaver, and only the half of a quarter of a beat; so you would have to play eight Demisemiquavers while you counted 1, thus: There are thirty-two Demisemiquavers in one Semibreve, sixteen in a Minim, eight in a Crotchet, four in a Quaver, and two in a Semiquaver.

The notes, with their relative value, are printed at the beginning of this chapter. Try and understand it all thoroughly, because, in playing and singing music, you will need to know a great deal about the *value of notes.*

Now answer the following questions:—

What is the worth of a Minim as compared with a Semibreve?

How many Quavers are there in a Minim? how many in a Crotchet?

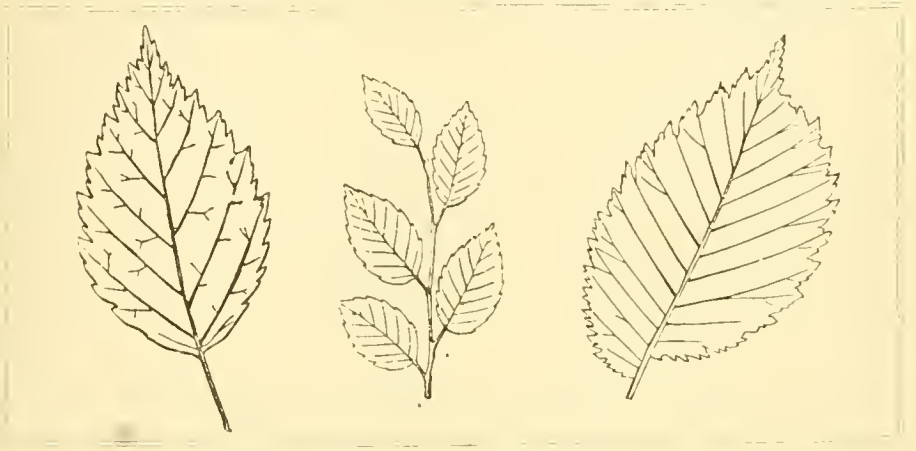
What is the form of the Demisemiquaver?

Write out all the notes, and state their value.

Which is the longest and most valuable note?

Which the shortest?

How many tails has a Semiquaver?



OUTLINES OF LEAVES OF TREES FOR PRACTICE.

[Leaves of trees afford admirable subjects for practising drawing, and at first you will find that the large ones are the best, such as the leaves of sycamores, plane trees, tulip trees, because the shape of their leaves is very marked and you can see them at a good distance, and when you draw them much smaller than you would if you were drawing only single leaves the shape is still easily distinguishable. A little practice should enable you to draw them as small as in the illustration.]

DRAWING LESSONS FOR THE YOUNG.

HOW TO DRAW A HORSE-CHESTNUT LEAF.

A HORSE-CHESTNUT LEAF.

WHAT beautiful great leaves there are on the horse-chestnut trees! They are like great hands with the five fingers spread out, only the fingers are a funny shape and very thick at the ends. If you notice a horse-chestnut tree on a lawn where the branches can hang down to the ground, and there are no horses or cattle, or even troublesome little boys to break them off or spoil them, you will see how the great leaves spread

themselves out flat to bask in all the warm sun they can get, and when you are not there to look at them they enjoy their bath in showers too, and then they get rid of all the dust and dirt that settles on them, but they do not like the cold east winds, for that dries them up and makes them look as though they had been burnt.

They do like a little gentle summer breeze, for that makes them rustle, and I suspect they tell stories to one another, though we cannot quite make out what the stories are always, but I am sure they enjoy it. Well, we might draw one of these great leaves. It would be best to pluck one and take it home and draw it indoors first, noticing all those points I told you when we drew the shells. I will not go over all that again, because I expect you to remember it, and we must not be always beginning at the beginning but we must go on.

You will want a big piece of paper to draw the leaf on at first, and then you will get all the stems that run down the leaves like skeletons. But afterwards you will be able to draw all this just as well much smaller (see picture on next page): if you remember what you drew in the large one you can put all the same strokes in, in a smaller copy of the same leaf. Now when you have done this you can go out of doors and draw a leaf or two on the tree itself without plucking it.

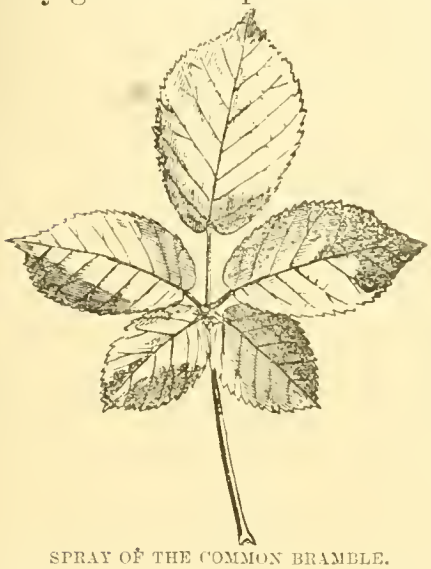
Perhaps there will be several leaves together and you can see the whole of one clearly, and some of the others will be more or less hidden behind it. You had better draw the whole leaf first, and then notice how the others fit into it, and mind you do not draw the parts of the leaves that you cannot see.

DON'T BE LIKE THE CHINAMAN, AND DRAW WHAT IS ROUND THE CORNER.

When you can draw half a dozen leaves in this way satisfactorily you may try a whole branch. There will be a new difficulty, however, in a branch, because you must manage to get all the leaves of a corresponding size. It will not do to begin at one end of the paper with leaves of one size and work away to the other, and find when it is done that you have gone on making them larger and larger until the last are nearly double the size of the first. You may prevent this kind of thing by making a faint outline of the general shape of the

branch and not allowing any of your leaves to go outside this, and if you begin by degrees, taking a small branch with not too many leaves at first, you will find there is not much difficulty in this.

I took the horse-chestnut leaf in this case because the leaves are large grained, and when you have drawn one thoroughly there will not be much difficulty in adding others of the same kind, but other kinds of trees will do very well for some practice. A very good bit of practice is to take home a small branch with leaves on it lying in all kinds of directions, some quite plain open before you, some turned sideways, some looking like mere lines, and some crumpled up into all kinds of shapes. You should fasten this up in some way and draw it carefully from more than one position, if you can get the time before it gets withered. The leaves of trees very soon wither, and it is no use putting them in water; they will not last like flowers. If you leave your drawing half done at night you will find that the next morning the leaves have all changed their positions and twisted and curled about so that you would scarcely believe it was the same branch; so it is no use to try and correct your drawing of yesterday by what you find to-day.



SPRAY OF THE COMMON BRAMBLE.

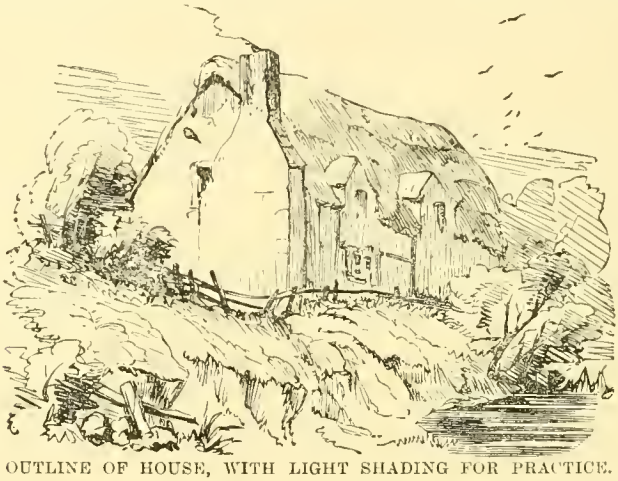
Whilst you are drawing leaves and branches in the way I have described, be careful to notice the difference between the different kinds of trees, and get somebody to tell you their names if you do not know them. And notice, too, how each tree has a different way of putting out its twigs and branches. The stems and bark are all as different as the various leaves. During the summer and the fine weather you may make quite a collection of different kinds of leaves and branches, and you

OUTLINE & VEINS OF LEAF. (Small.)

will find these very useful some day when you want to fill up a bit of a picture you are doing, for a drawing from a real branch is always better and more pleasing than anything drawn out of your own head as people say, which only means drawn from memory, which will not be so accurate as the paper you have kept.

HOW TO DRAW A HOUSE.

You would like, I daresay, to draw a picture of the house where you stay in the summer time, or of some pretty place



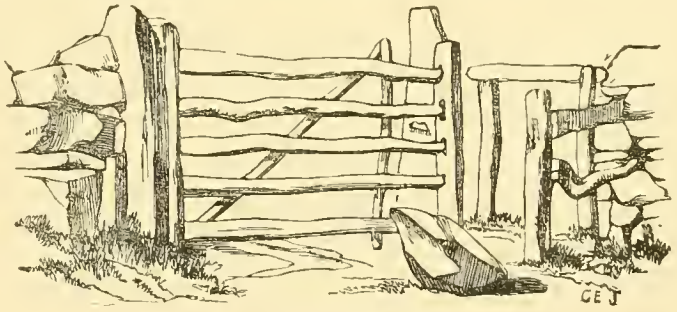
OUTLINE OF HOUSE, WITH LIGHT SHADING FOR PRACTICE.

that you are fond of. We will talk about this and see how it is to be done. Some people think this is very easy, so they go and sit down where they can see all the house, straight in front, and they put in all the windows and doors and then are quite satisfied, but it is not the pretty place that you know it to be. Others, again, are so frightened at beginning that they do not know what they are to do, or what size they must make it, and so they give it up in despair. It is really very much like drawing the chestnut tree which we talked about in the last chapter; there is no very great difficulty if you begin the right way, but it all requires care and attention and pains. You must begin by choosing what you want to draw, and you must pay your chief attention to that. In the chestnut branch we chose out the leaf to begin with; in the view, if you want to have a view of the house, you must find some spot where you have a pretty view of it: not too close, because then you

will get in nothing else, and it is the scenery round it that makes it look so pretty; and not too far off, or it will be so very insignificant compared to all the rest that you get in.

Another point you must attend to is that the house must not stand right in the middle of your picture, but a little (not too much) to the one side or the other of the middle. First you must choose your spot, and then you must look at the place as if it was inside the frame of a picture, so as to see how much must come into the picture and what you will be obliged to leave out. You will want a little of the view on each side, some trees and a bit of distance, and a little piece of the road leading up to the house. Then you ought to see that the lines run prettily towards one another, and do not make awkward or unpleasant angles. When you have settled all this you may begin your drawing.

Many people ask how big should the picture be? That depends as much upon what is convenient to carry or to hold as anything else, because you can get a picture of any view upon any sized paper: all you have to do is to get it in proportion. Just as with the large shell I told you of, you may have your line across the view. The readiest line to take is



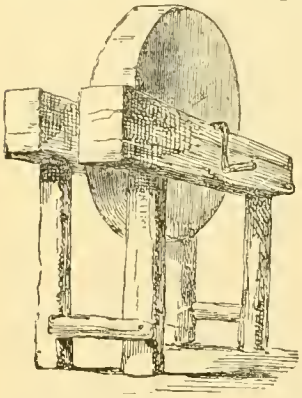
AN EASY COPY FOR PRACTICE—A RUSTIC GATE.

the line of the horizon where the earth meets the sky, which in all, except very hilly views, is very nearly straight. You can mark off on this the proportionate distances at which the walls of the house and the trunks of the trees cross this line, and by means of the slopes or angles you can tell how high and how low these lines should run. There are many other points too that you will have to be careful about, but if you look thoughtfully you will get over most of the difficulties. You ought to know a little about perspective, in order that

you may get the lines of your house right, and if you can get somebody to explain about that, it will save you a great deal of trouble. I cannot get room to do that here now, and I doubt if you would quite understand me if I did, but there are one or two things that I may tell you about.

A LITTLE TALK ABOUT PERSPECTIVE.

All the lines that run away from you go towards the horizon line, and most of them towards one spot on that line. For instance, if you are standing in a road and there is a house or cottage by the side of that road, as you look along it the line of the roof of the house will run downwards the further away from you it goes; the line of the foundation of the house, however, where it meets the path, will run upwards toward the sky, whilst the two sides of the path, which you know to be nearly the same width all the way along, seem to run together almost to a point in the extreme distance. You, perhaps, may be a little puzzled about some of the lines of the windows or doors, whether they run up or down, but you can always tell if you can determine whether they are above or below your own eye, that is whether they appear above or below the horizon to you. If they seem to be above the horizon they run down towards it, and if they are below it they run up towards it. This will be enough perspective for you to learn at present, and it will be enough to prevent you making any great mistake.



GRINDSTONE.

Now the rest of your picture of the house may be gone on with, when you have got the building itself in. The distance must be drawn very light and fine, and remember that things a long way off look very small, so do not make them too large to fill up the small space you have left for them. Then you must take pains with the trees and try and draw the outline of the tree so that you can tell what kind of a tree it is, whether an elm or an oak or a fir, or whatever it may be. For each kind of tree has its own outline just as much as its peculiar leaf, proper bark, and different way of putting forth its branches.

QUARREL BETWEEN HENRY VIII. AND CARDINAL WOLSEY.

THE HISTORY OF ENGLAND IN EASY LESSONS.

HENRY VIII.

How everybody liked King Henry at first, when he was a young man, but how he became cruel and bad as he grew older. About the wars with Scotland and France, and the Field of the Cloth of Gold. About Henry's six wives, and also about the Reformation.

CATHERINE PARR BEGGING FORGIVENESS OF HENRY VIII.

WHEN Henry the Eighth became king, at the death of his father Henry VII., everybody liked him, for he was clever, handsome, generous, and good-natured. One of his favourite amusements was to invite all the great scholars and lawyers, painters and physicians, to the Royal Palace, so that he might hear them talk. And he learned a great deal from hearing what they said.

But I am sorry to tell you that as he grew older he changed very much, and became very cruel and tyrannical. He ill-treated his friends and beheaded some of the best men in the kingdom, because they would not do just what he wished.

Very soon after he became king he had a war with Scotland, and also one with France. The English army which was sent against the Scotch was commanded by a very brave and wise man named the Earl of Surrey, while the Scotch commander was their own king, James the Fourth. The two armies met and fought a battle at a place called Flodden Field. All day long the battle raged, and at last the Scotch king was killed, and some of the best and bravest of the Scotch nobles were killed also. A very clever man, Sir Walter Scott, has written a poem, called *Marmion*, which tells you about this battle, and you will like to read this poem by and by when you are older.

HENRY'S WAR WITH FRANCE; THE BATTLE OF SPURS; THE FIELD OF THE CLOTH OF GOLD.

King Henry was also successful in his war with France, and in the first and only battle which was fought the French made such good use of their spurs to make their horses run away that this battle is known as *The Battle of Spurs*. This was in 1513.

Not long after this the French king died, and a young man not much older than Henry VIII. became king of France. He was called Francis the First. And the two young kings agreed they would meet together and have a merry time; so taking a number of their friends with them they met at a place called Ardres, in France, and spent many days in happiness and feasting. This meeting is called *The Field of the Cloth of Gold*, because there was so much gold in the dresses and tents. Do not you think it was much better to meet like this in a friendly way than to fight with one another?

THE STORY OF CARDINAL WOLSEY.

One of Henry's greatest friends during the first part of his reign was a very clever and learned man named Cardinal Wolsey. Henry had made him a Bishop, and the Pope had made him a Cardinal. He was very rich, and with part of his money he built the great college of Christ Church at Oxford, and also a good school at Ipswich, where he was born. He was very fond of learning, and of doing all he could to spread the love of learning among the people. He also built the great palace at Hampton Court.

But after a time, as Henry grew more and more cruel and tyrannical, Wolsey did not please him so much as at first, and at last they had a desperate quarrel because Wolsey would not do exactly as the King wished. So Henry, who had become very passionate, ordered his riches to be taken from him, and Wolsey went to Yorkshire. Not long afterwards Henry sent for him to London, and no doubt he intended to have his head cut off, but Wolsey died at Leicester Abbey as he was coming to London. Was not Henry becoming a bad and cruel man? But I want you to remember Wolsey's last words. As he was dying he said, "Had I but served my God as diligently as I have served my king, He would not have given me over in my grey hairs; but this is my just reward." I hope you will make up your mind that all through life you will serve God more diligently than anybody else. Remember that is the first thing to be careful about in life.

ABOUT HENRY VIII.'S SIX WIVES.

But Henry VIII. was very cruel to other people besides Wolsey. He behaved very badly to his wives, and he had six. First he was married to Catherine of Arragon, but after several years he grew tired of her and wanted to marry another lady named Anne Boleyn, so he found some excuses for sending Catherine and her daughter Mary away from him, and he made Anne Boleyn his Queen. But after a time Henry grew tired of her also, and her enemies told him some bad stories about her, and so he ordered her head to be cut off. On the very next day he married another very pretty young lady named Jane Seymour, but she died very soon.

His next wife was a German lady named Anne of Cleves, but he took a great dislike to her looks and so she was soon separated from him, and he gave her a house to live in and a good deal of money to spend and thought no more about her.

Then he married Catherine Howard, but in about eighteen months' time he accused her of some bad deeds and had her head cut off. Last he married Catherine Parr, and she lived until after Henry's death, although once she nearly lost her life by opposing his ideas. In great rage he ordered that she should be arrested, but she begged his forgiveness so humbly that when they came to take her to prison he told them to be gone.

ABOUT THE REFORMATION, AND HOW THE MONASTERIES WERE ABOLISHED.

Now at this time the Church of England was the same as the Church of Rome, and the Pope, who is the head of the Romish Church, pretended to have a great deal of power in England. But there were many people in England, and also in Germany, who thought that there were many evils in the Romish Church which ought to be *improved* or *reformed*, hence they were called Reformers, and because they protested against certain opinions they were called *Protestants*.

Now Henry had a dispute with the Pope about his second marriage, and he thought that the English clergymen would be better governed if the King of England governed them instead of the Pope. So he determined to make himself master, or Head of the Church as it is called, instead of the Pope; and he thought, moreover, that if he abolished all the convents and monasteries where monks and nuns lived, and made them live and work like other people, he could get all the money. And he did so, and turned them all out, so that many died from hunger.

This was very cruel of Henry, and roused great opposition among many of the people, but the Parliament supported him in his desire to be Head of the Church; because we English people are and always have been very independent, and won't have anybody else to interfere with us. We have our own king or queen and our own Parliament, and won't have any other person to pretend to have power over us.

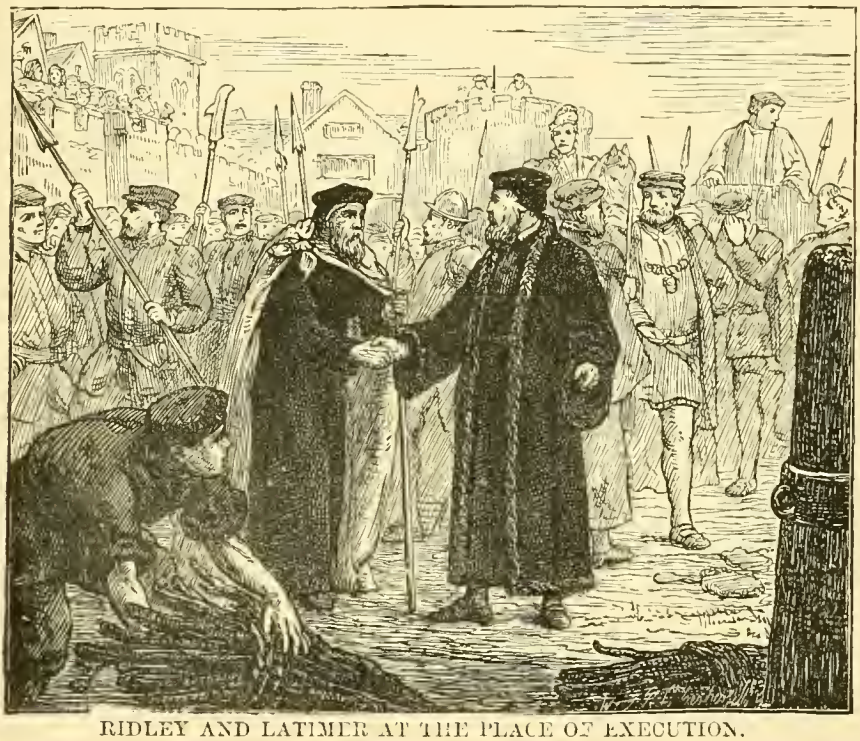
But although these changes were no doubt good for the country afterwards, yet they caused a great deal of misery then, because Henry did not make them in the *right way*. And he was so wicked as to say that unless people believed what he believed, and worshipped God in the way he told them, he would burn them alive. And many people were really burned according to this wicked law, and Henry also cut off the heads of a very good man, Sir Thomas More, and several other very good people, just because they would not do as he wished or because he took a dislike to them.

In fact, Henry VIII. was one of the most cruel and wicked kings that England ever had, although when he was a young man he was so generous and good-humoured. This is what

comes, you see, of yielding to evil passions and determining to have one's own way in everything.

EDWARD VI.; HOW HE CAUSED THE BIBLE TO BE READ IN ENGLISH.

Henry VIII. left three children, Mary, Elizabeth, and Edward, and Edward became king at the death of his father. He was only ten years old; but a council of twenty-eight



RIDLEY AND LATIMER AT THE PLACE OF EXECUTION.

nobles and clergy, with his uncle, the Earl of Hertford (who was afterwards called the Duke of Somerset), at their head, managed the kingdom very well for him.

Edward VI. was a gentle and amiable boy, and people hoped he would live long and make a good king. But he died when he had been king seven years. His reign, however, was of great benefit to the country: his council agreed to let everybody who chose read the Bible for themselves in English, and the clergymen were ordered to say the prayers in English in the churches. The King was a Protestant, and his uncle,

the Duke of Somerset, was a Protestant also, consequently they favoured Protestantism.

Edward saw but very little of his sisters Mary and Elizabeth, but he was very fond of his cousin, Lady Jane Grey. Mary was a Roman Catholic, and I fear hated all Protestants, including even her brother, gentle Edward VI., and as he grew weaker and weaker he was persuaded to make a will, leaving the crown to his cousin instead of to his sister Mary. This was not right, because according to law Mary would be queen if Edward died before her, and kings and queens must obey the law just as much as other people (and only the whole Parliament can alter the law), but he was afraid she would ill-treat the Protestants, and so he allowed himself to be persuaded by the Duke of Northumberland to make this will. The Duke was the father-in-law of Lady Jane Grey, and he thought if she was queen he would get all the power himself, and you will see presently how he was punished for persuading Edward VI. to make the will. Soon after this Edward died.

MARY I., AND HOW SHE PERSECUTED THE PROTESTANTS.

After the young King's death, Northumberland proclaimed Lady Jane Grey queen. She did not want to be queen. She was gentle and loved retirement and learning, and I really believe did not want to be queen because she thought Mary had a better claim. And the great majority of the people thought so too, and a great number of nobles and gentlemen gathered round Mary. In a few days Northumberland and many of his supporters were put into prison, and soon afterwards Mary ordered their heads to be cut off. Then, I am sorry to tell you, she did so many cruel and horrible things that she is known as Bloody Queen Mary even to this day. First of all, she determined to marry Philip of Spain against the wishes of even her best friends, and to the bitter disappointment of her people. Her great object was the restoration of the Roman Catholic religion in England. She thought Philip would help her. She burnt a great number of good people who could not agree with her opinions. Among those who were burned were two good Bishops, named Latimer and Ridley, who suffered together at Oxford. "Be of good cheer, Master Ridley," cried Latimer, as they tied him to the

stake, "we shall this day kindle such a torch in England as I trust will never be extinguished." And the torch has never been extinguished, for Protestantism still prospers. Many good persons were also burned in London, at Smithfield. These

QUEEN ELIZABETH SPEAKING TO THE SOLDIERS AT TILBURY.

good persons who suffer death because they will not give up what they believe to be right are called martyrs. Mary died in 1558, five years after she became queen.

THE STORY OF QUEEN ELIZABETH.

Mary's half-sister, Elizabeth, the daughter of Anne Boleyn, now became queen. She was twenty-five years old, very nice looking, and much better tempered than Mary.

One of the first things she did was to set free all the poor Protestants whom Mary had shut up in prison, and to restore

the Protestant religion. In doing this she was helped by a very wise man, William Cecil, afterwards Lord Burleigh, by whose advice she was guided and helped nearly all the time she was queen.

Elizabeth had not been queen very long when her cousin, Mary, Queen of Scots, who had had a great deal of trouble in her own country, came to seek her help. But she did not act at all rightly. First she seemed to want to make friends with her cousin Elizabeth, but all the time she was asking the kings of France and Spain, by letter, to help her to get back not only Scotland but England to herself. She promised to marry the great Duke of Norfolk, and make him king if he would but help her to be queen. And she also wrote to the Pope and asked him to help her, and she promised him to make England Roman Catholic again. This was of course very wrong; when Elizabeth and her wise statesmen heard of it they put Mary, Queen of Scots, in prison, and not long afterwards she was beheaded.

HOW THE BRAVE ENGLISH SAILORS DEFEATED THE SPANISH ARMADA.

You remember that I told you Mary Tudor, Elizabeth's sister, married Philip of Spain, and that the English people did not like Philip because he was so cruel. Well, when Mary was dead Philip wanted to marry Elizabeth, but she would not listen to him, and Philip, who hated England and wanted to make it a part of his own empire, resolved to conquer it, and make all the English Roman Catholics against their will.

Now, in Queen Elizabeth's time there were several great Admirals, very clever men, who knew how to sail ships well. One of them was called Sir Francis Drake, another Sir Martin Frobisher, and another, who was both a sailor and a soldier, Sir Walter Raleigh; and the Queen used to behave kindly and pleasantly to all these great men like a friend. She used to visit them in their houses and talk to them about the affairs of the nation, and when she was riding or walking she took notice of even the poorest people, and all of them loved the good queen.

So when they heard that Philip was preparing a great army

to conquer England, they set to work to gather a great many soldiers and a number of ships to oppose him. And soon England had a good fleet of ships, though not nearly so large as Philip's, and a great many soldiers. The man who had the chief command of the ships was Lord Howard of Effingham, and with him were Lord Seymour, Sir Francis Drake, Sir John Hawkins, Sir Walter Raleigh, and Sir Martin Frobisher. A number of soldiers were collected at Tilbury Fort, on the

THE SPANISH ARMADA ATTACKED BY THE ENGLISH FLEET.

Thames, not so very far from London. Queen Elizabeth went there and spoke to the soldiers.

Soon after the Spanish fleet set sail a storm arose, and some of the great unwieldy ships were so damaged that they had to return to Spain to refit; but in a short time afterwards the great Armada went on. Then the English fleet, which was waiting for them at Plymouth, slipped out after them as they passed up the English Channel, and poured a perfect storm of shot into them.

All the week they followed them, beating them all the way, and at last, when they were anchored near the Straits of Dover, the English sent fire-ships into the middle of the Armada in the dead of night, and the Spaniards sailed away in a fright.

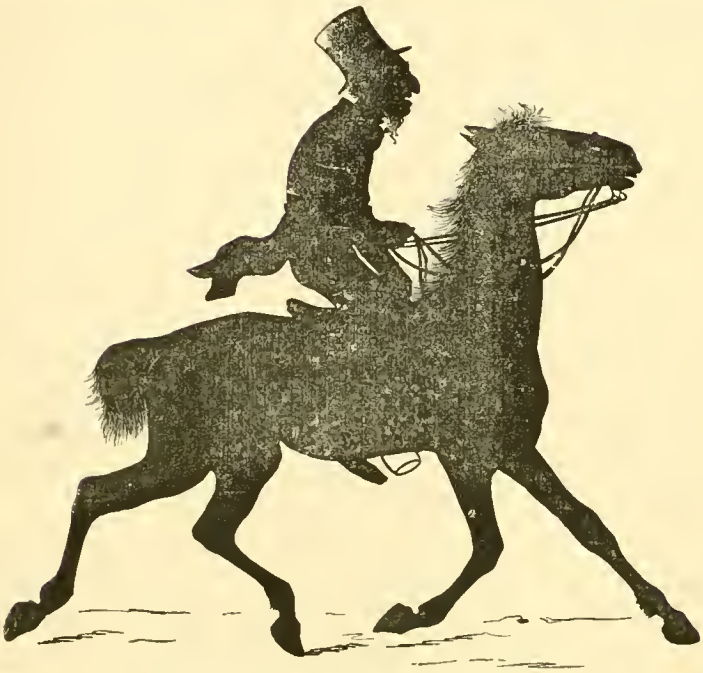
The English pursued them up the North Sea, and then a great storm came on and wrecked a great many of their ships.

They had been so battered about by the English that they were not able to stand the strain of the storm. Only a few of the Spanish ships ever got back to Philip again, and many thousands of the Spaniards were killed or drowned. So the Armada was completely beaten.

Elizabeth was queen for a long time—forty-five years. I have not nearly space enough to tell you about the number of wise and good things that were done in her reign, nor about the great men that lived at this time. But you must know that our greatest poet and dramatist, William Shakespeare, lived now, and also that Edmund Spencer, another great poet, lived and died in her reign. Elizabeth died in 1603.

QUESTIONS.

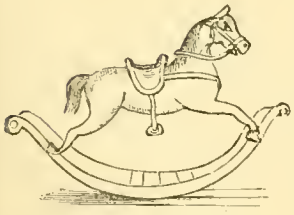
What relation was Richard II. to Edward III.?
How old was he when his grandfather died?
How was the country governed?
What was the first important event in his reign?
Tell me about it.
But though Richard was sometimes brave and good, was he always so?
Who was his wife?
How was he dethroned?
Who was the new King?
Who were his greatest enemies?
Tell me something about them.
Who was first executed because of his religious opinions?
Who were the Lollards?
Who succeeded Henry IV.?
Was he a good king?
Tell me an incident of his youth, when he was imprisoned by Judge Gascoigne.
What great battle was fought in the reign of Henry V.?
In what year was this battle fought?
When did Henry V. die?
Who came after him?
What age was the new King?
What terrible event happened in his reign?
What caused the Wars of the Roses?
Why were they called by that name?
How did they end?
What kind of king was Edward IV.
What great art was introduced in his reign?
Who was the first English printer?
Who was king after Edward IV.?
How did he die?
Who was the next King?
Was he a good man?
Why was he called "Crookback?"
When did the Battle of Bosworth take place?
Who was Henry Tudor?
Who was Henry VIII.?
Who was Cardinal Wolsey?
Tell me about Henry's six wives.
Who was king after Henry?
Did he favour Protestantism?
Who reigned after him?
Did she favour Romanism?
Who was queen after Mary Tudor?
What great event happened in her reign?
Who sent the Armada against England?
Who was Mary Queen of Scots?
Tell me the names of some famous men who lived when Elizabeth was queen?
How long was Elizabeth queen?



HERE IS A MAN ON HORSEBACK.
VOICI UN HOMME À CHEVAL.

EASY LESSONS IN FRENCH.

X.—A LITTLE GAME AFTER TEA. UN PETIT JEU, APRÈS LE THÉ.



THE ROCKING HORSE.
LE CHEVAL À BASCULE.

NOW that tea is over let us play a little together.

Maintenant que le thé est fini jouons un peu ensemble.

What shall we play at? *À quoi jouerons-nous!*

Oh! here is a man on horseback, let us play at horses.

Oh! voici un homme à cheval: jouons aux chevaux.

Very well, come here all. *Très-bien, venez ici tous.*

Get on the rocking-horse. *Montez sur le cheval à bascule.*

By turns. *Tour à tour.*

And first the little Rose, because she is a stranger.

Et premièrement la petite Rose, parcequ'elle est étrangère.

For the others, let them stand by and count. Now then, count and sing.

Pour les autres, qu'ils se tiennent à côté et qu'ils comptent. Maintenant, comptez et chantez :—

Une fois, deux fois, trois fois,
Cherchez la route à Flandres :
Quatre fois, cinq fois, six fois,
Madame, il faut descendre.

And down Rose comes. Now, if I put that into English for you, it is—

Once, twice, three times,
Look for the road to Flanders ;
Four times, five times, six times,
Madam, you must get down.

You see it is not rhyme now, but that does not matter. Poor little Rose must come off. And now Edouard may get up. *Montez, Edouard, c'est à vous.*

Pardon me, if you please. It is Nora's turn and Edie's turn before mine. Ladies first ; gentlemen must wait.

Pardonnez-moi, s'il vous plait. C'est à Nora, et à Edie, avant qu'à moi. Place aux dames. Il faut que les messieurs attendent.

That is very polite of Edouard, is it not? He is a good boy. I will tell him so in French. *Vous êtes un bon garçon, Edouard.*

Ernest, show Edouard your soldiers while I swing Nora.

Now then, a song for Nora, if you please.

Maintenant, une chanson pour Nora, s'il vous plait.

So now that we can see that Nora is ready for starting, *le pied à l'étrier*, her foot in the stirrup, we will sing as before.

Poor Nora! It is a short little ride, isn't it? There are others waiting, you see.

Now it is Edie's turn; here is a song for Edie—

Balancez, balancez, blanc cheval,
Balancez-la, tout le jour;
Allez à l'église, allez au bal,
Allez au marché à tour.

EDWARD AND THE SOLDIERS.—*EDOUARD ET LES SOLDATS.*

In English, this would be—

Swing, swing, (or rock, rock) white horse,
Rock her all day long;
Go to the church, go to a ball,
Go to the market in turn.

How do you like the soldiers, Edouard?

Oh, ils sont bons soldats. Oh, they are good soldiers. *Je mets le chapeau et je prends le fusil.* I put on the hat, and I take the gun.

Now then, off with little Edie, and let the boys have their turn. What shall we do then?

Look at me. *Regardez-moi.* I am Minnie, the cat. *Je suis Minette, la chatte.* Mee-ow!

Ah, you all laugh at that, do you?

Well then, I am now a humming top. *Eh bien, maintenant je suis une toupie d'Allemagne.* And I spin and I spin, and I hum,—*et je me tourne et me tourne, et je murmure et murmure et m-u-u-u-r.*

Et cela vous fait rire, aussi? And that makes you laugh also! Very well then, I will be a wild animal, *Je serai un, un, un loup-garou,* oo-oo-oo! *Otez-vous!* Be off! *A bas les mains!* Down with your hands! *Gare, gare!* Beware!

And now that you are all running away from *le loup-garou,* I will be a bow-wow. Bow-wow! See, I am a dog! Bow-wow!

"*Et moi, je suis un tou-tou,*" says little French Rose.

"*Et moi, je suis aussi un tou-tou,*" says Edith.

And Edouard says, "*Et nous! Nous sommes des tou-toux! Grands tou-toux!*

And Ernest says the same thing in English. It is: "And we! We are bow-wows! big bow-wows." And we are getting so tired, and so hot, and so noisy, and—

Here comes nurse to put us all to bed. But first you would like a little supper.

Pass me the milk, if you please. *Passez-moi le lait, s'il vous plait.*

Will you have another piece of bread? *Voulez-vous avoir encore un morceau de pain?*

No, I thank you. *Non, je vous remercie.*

Will you take a cup of tea? *Voulez-vous prendre une tasse de thé?*

Do you like the cake? *Aimez-vous le gâteau?*

Yes, it is very nice. *Oui, c'est très bon.*

I PUT DOLLY TO BED IF SHE IS NAUGHTY.
[In this sentence "to" is the Preposition.]

GRAMMAR.

VI.—PREPOSITIONS, CONJUNCTIONS, AND INTERJECTIONS.

MARY IS IN BED AND FAST ASLEEP.
["In" is the Preposition.]

WE have already talked about six parts of speech, which are—Nouns, Articles, Pronouns, Adjectives, Verbs and Adverbs. The seventh part of speech is a Preposition. Now let us see if we can find out what a preposition is. Supposing you want to mention two things you are thinking about, in this way: I put Dolly to bed if she is naughty. The little word *to* is a Preposition. We might say: The bird lives *in* the nest *on* the roof *over* the way; or Mary is *in* bed and fast asleep. These words, *in*, *on*, and *over* are Prepositions. We should find it very difficult to make sentences without prepositions.

Here is a list of them: *to*, *of*, *in*, *from*, *alone*, *below*, *about*, *over*, *under*, *behind*. Now, make as many sentences as there are prepositions here, bringing in a preposition in every sentence, such as, "I like to run *in* the wood." "The dog barks *over* the wall." I wonder if you are sharp enough to understand this? Sometimes you see a preposition refers to time,

as in the sentence, "I eat grapes *in* the season, or *during* the season." Sometimes it will refer to place, as, "I found my dog *at* the foot of the stairs, or *on* the mat."

A great many of the words in the English language are prepositions, are they not? especially the little words.

NOW FOR A CONJUNCTION.

A Preposition shows the relation between two thoughts in one sentence, but a conjunction will connect two sentences so as to make them into one. Supposing we would say, "John is in the garden. Kate is in the garden." We should not make two sentences of it like that; we should say, "John *and* Kate are in the garden." *And* is therefore a conjunction. Again, in the sentences, "I do not like Fred. He is a bad boy. He is fond of fighting." We might make *one* sentence of all that by saying, "I do not like Fred, *because* he is a bad boy, *and* fond of fighting." You see, conjunctions are something like prepositions, and you must be very careful not to confuse the two in your mind. A conjunction often carries on a sentence. If we say, "I should like to go fishing, *but* I am too tired." Without the conjunction *but*, our sentence would have to stop at the word *fishing*, and we should have to begin a fresh sentence to show why we could not go, by saying, "I am too tired to go."

THE NINTH AND LAST PART OF SPEECH IS CALLED AN INTERJECTION.

An Interjection expresses surprise, joy, or sorrow. Such as Oh, Ah, Alas, Indeed. Find out the interjections in the following sentences:

"Oh, dear! I have lost my ball." "Indeed! you must do no such thing." "Alas! he is dead." "Ah! I am surprised to hear it." "Fie! I am ashamed of you." An interjection often has this sign after it ! which is called a note of exclamation. An exclamation, ejaculation, and interjection mean one and the same thing. This ninth part of speech is quite easy to remember, I am sure. Now that I have told you about all the parts of speech, I want you to read several sentences in any book and say what part of speech each word is, whether the noun is singular or plural, &c.

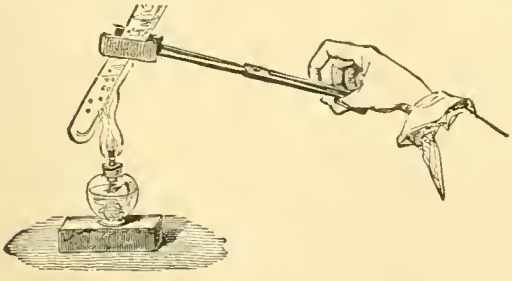
I have something more to tell you about *verbs* next time.

MAKING A SOLID OUT OF A LIQUID—A VERY EASY LITTLE EXPERIMENT.

[If you make a very strong solution of alum in hot water, that is, dissolve such a quantity of alum that the water will not dissolve any more, and then leave it to stand until it gradually cools, you will find it become limpid and clear. When it is quite cool, if we plunge into it a small crystal of alum suspended from a thread we shall see that crystallization instantly commences, and rapidly increases in size, until the solid matter nearly fills the whole jar. This shows us clearly what a solution is. In a solution one substance is minutely divided and is scattered in another (as the alum is in the water), and sometimes it can be collected together again.]

CHEMISTRY FOR CHILDREN.

LESSON VI.—SOMETHING ABOUT SOLUTIONS.



MAKING A SOLUTION OF THE ALUM.

[In making experiments a little spirit lamp is an admirable means of affording heat, and in a glass test-tube liquids may easily be boiled over it. Alum should be added to the hot water until it will dissolve no more.]

YOU ask at once, What is a solution? Well, every day you sweeten your tea or milk with sugar, don't you? What becomes of the sugar? In the lump it is a white solid glistening substance; when added to the tea in your tea-cup you cannot see it, it disappears. It is there, however, because you can taste it. Where is it hiding? The fact is, then,

that the hot water has separated the sugar into such small parts that no one can see them, and that these parts are scattered all up and down the water, so that a drop taken from either top or bottom tastes equally sweet. We say, then, that the water has *dissolved* the sugar, and the water with the dissolved sugar in it is called a *solution* of sugar.

Water dissolves many different kinds of substances, both solids, liquids, and gases. Thus you know that water will dissolve common salt, which is a solid. If you take a pinch of salt and put it in a tumblerful of water, you will find that it soon disappears, but that it is in the water is very evident to the taste. Water will dissolve treacle, which is a liquid, and it will dissolve carbonic acid, which you know is a gas.

HOW SHELL-FISH MAKE THEIR SHELLS.

This solution of carbonic acid in water is a very important one, because it will dissolve some things that pure water alone will not dissolve. Thus pure water will not dissolve chalk, but water containing carbonic acid in solution dissolves chalk very readily. Now as water and carbonic acid are both very common substances, and are very often together, the water as a rule contains carbonic acid in solution, and if such water passes over chalk rocks on its way to the river it dissolves some of the chalk, and this solution of chalk finds its way into the ocean. This is happening every minute, nay every moment the year round, so that there is a constant supply of chalk being sent into the ocean. What becomes of the chalk? It is constantly being taken out by animals like cockles, mussels, lobsters and crabs, and they make their shells from it. Now just think of this next time you see a cockle-shell; how a solution of chalk in carbonic acid water was carried to the ocean, and how this tiny animal managed to take some of this chalk out of the sea-water to make its shell with, although the chalk there was as invisible as the sugar dissolved in water.

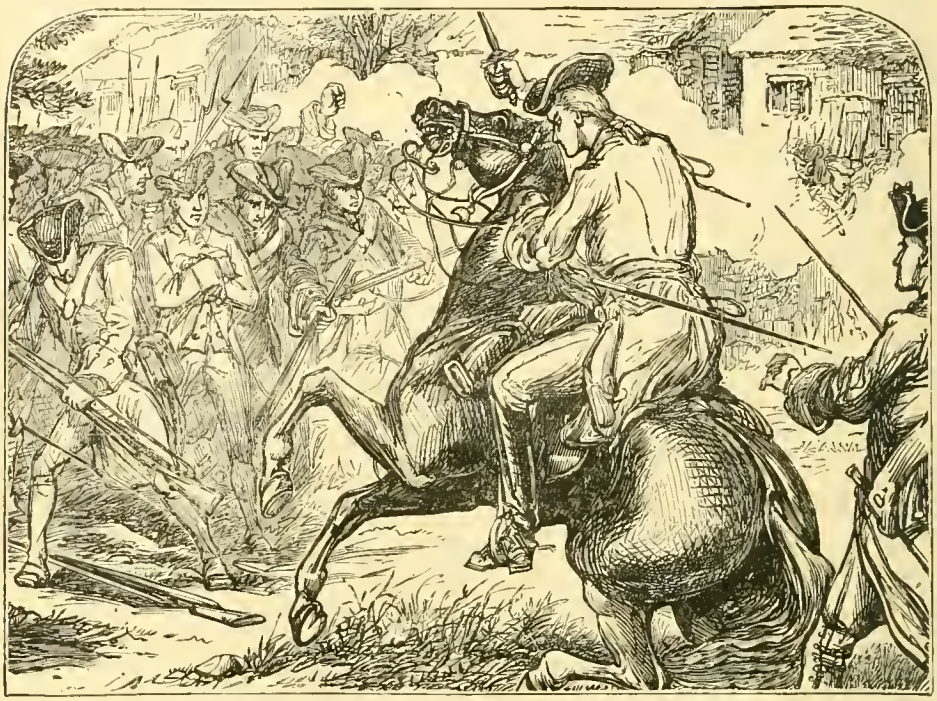
Spring water contains carbonic acid in solution, and of course in coming to the surface of the earth at some bubbling well it may have passed through chalky rocks on its way. In such a case the water contains chalk, and is said to be *hard* water. It is called hard water because one has a difficulty in getting a lather with soap. If you should happen to have to

travel about much you will find out the difference between hard and soft waters. At one place the water may be so soft that soon the water you are washing in is covered with a frothy lather, while in another part of the country the same quantity of soap will not give a lather at all. The soft water contains very little chalk, and the hard water contains much more.

The surface of the land is being continually washed by water, and the more easily dissolved substances, like common salt, for example, are being continually carried to the ocean, where they are left to add to its saltness. Water dissolves all sorts of things, some to a great extent, and some only to a very small extent. Sand is dissolved by water to a very small extent, and finds its way in solution to the ocean. In the ocean it is used for shell making, as there are some very small animals, so small that the microscope has to be used to make them out, and these tiny creatures make their shells out of the dissolved sand.

A question arises here. When a substance is dissolved, is it changed? If it was a solid, it is certainly a solid no longer, but in the examples we have so far given, there would appear to be no other alteration. Thus, common salt dissolved in water is common salt still, and nothing else. It could be proved by taking a solution of common salt and boiling it in a kettle until all the water had been driven off as steam. The substance left behind would be the common salt put into the water at first. But this experiment is regularly done on a large scale, and you need not spoil the family kettle in trying it. Perhaps you will remember that Robinson Crusoe obtained his salt in somewhat the same way when he was on the island. He obtained his salt from sea-water.

There are, however, what may at first sight appear some different kinds of solutions from any we have so far considered. Thus, copper dissolves readily in a liquid called nitric acid, and also known as aquafortis. Now if you get some nitric acid and dissolve a bit of copper in it, just to see whether it is so, you must not try the experiment in the house. Do it out of doors, because while the copper is dissolving, you will see some ruddy fumes apparently coming from the liquid, and if you were to breathe these fumes in a confined room, you might be very seriously harmed.



MAJOR PITCAIRN AT THE BATTLE OF LEXINGTON.

AMERICAN HISTORY.

III.—THE SETTLEMENT OF THE SOUTHERN STATES.

PORTRAIT OF WASHINGTON.

WHILE the events had been happening, of which I told you in the last chapter, other colonies had been formed in the south.

The first settlement in New Jersey was a small one made in 1624, by emigrants from Denmark; and other settlements were soon made in the district by Dutchmen and Swedes. But about forty years afterwards they came under British authority, together with the colony of the New Netherlands.

A few years after this, in 1681, William Penn, who was a very wise and rich man, sent out a number of Quakers from England, and they made a settlement on the banks of the

river Delaware, near the place where Philadelphia now stands. He came himself soon afterwards and made a treaty with the Indians, and organised the colony which was called after him, Pennsylvania. Two hundred Roman Catholics from Ireland first settled in Maryland in 1664. North Carolina was settled by English emigrants in 1650, and South Carolina twenty years afterwards; Georgia in 1732. Thus the whole country on the Atlantic coast from Maine to Georgia was settled by emigrants from Europe, and principally from England.

In fact, in 1756, when a terrible war broke out between the French and English, the whole of the colonies belonged to the British, except Canada in the north and Louisiana in the west, both of which belonged to France.

HOW CANADA CAME TO BELONG TO ENGLAND.

But in the year 1756 the great war began which ended in the conquest of Canada by the English. The war lasted for several years, and many battles took place along the borders of Canada; the Indians helped both sides, and the events that occurred and the stories that have been told of this exciting period are very interesting, but I have no space in our little history to do more than just to mention them.

The capital city and the chief fortress in Canada was, and still is, Quebec, on the river St. Lawrence. On the land side there is an open plain called The Heights of Abraham, and one dark night General Wolfe, the English commander, climbed the rocks with his bold soldiers, and when the morning dawned the French were greatly surprised to see the English soldiers ready for battle just outside the city.

But General Montcalm, the French commander, was a brave man, and he determined to fight hard and save Quebec from being taken. So he encouraged his men, and a desperate battle took place. The cannons and guns hurled forth their deadly shot, and soon hundreds of dead and dying men lay on the ground. The ranks of Frenchmen and Englishmen met again and again, until at last the French were defeated, and then the English got into Quebec. But brave General Wolfe was killed on the field of battle, and Montcalm was wounded so severely that he died soon afterwards.

This battle took place in 1759, but peace was not finally

made until 1763, when a treaty was signed by which all the northern French colonies, including Canada, New Brunswick, and Nova Scotia, were yielded to England, to whom they have belonged ever since.

THE REVOLUTION, AND DECLARATION OF AMERICAN INDEPENDENCE.

About 170 years had now passed since the first settlement had been made in Virginia, and there were at this time thirteen English colonies, without counting those which had been taken from the French. These thirteen were,—New Hampshire, Massachusetts (including Maine), Rhode Island, Connecticut, New York State, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia. Vermont had not then obtained an independent existence as a colony, and was claimed by New Hampshire and also by New York State.

These colonies now contained about three million people; they had often found it necessary to combine for mutual defence, and they had begun to have a national feeling. They still loved England, for it was the land and the home of their fathers, and from it came their ideas of religion and morality. They felt that they belonged to the great English people; they had the same language, and they were of the same race. They always spoke of England by the endearing names of *home* and *mother country:* and they were fond of the English Government and were loyal to the English sovereign.

It was, therefore, very slowly and very reluctantly that at last they began to believe that the English Government looked upon them with jealousy, and desired not only to keep them poor and feeble but to make them contribute to the wealth and prosperity of the mother country; that its policy towards the colonies was wholly selfish, and that in its desire to make them mere instruments of aggrandizing Britain it was quite careless of the happiness of the people.

And I am sorry to tell you that I think the English Government of that day was very unwise, and did not treat the colonies well. Among other things it wanted to make them pay taxes, and yet would not allow them to send men to the Parliament to speak on behalf of the colonies.

But the colonists said that by Magna Charta and the old

laws of England no Englishman might be taxed without the consent of their representatives in Parliament. And they determined to resist the demands of the English Government. One thing that the English Government wanted to tax was *tea;* that is, they wanted the colonists to pay a sum of money for every chest of tea that was brought into the country. But one night, as some ships were lying in Boston harbour with a number of tea chests on board, some daring Americans rowed out to them and emptied the tea into the water. "We will have no taxed tea here," they cried; and their daring action showed that they meant what they said. This event has been popularly called "The Boston Tea Party."

The news soon flew all over the country, and ships took the story back to England. Still the Government persisted in their unwise course, and men soon saw that a war would come.

THE BATTLE OF LEXINGTON.

England sent a large number of troops to Boston, which was the centre of the excitement. But this seemed to make matters worse, for disturbances broke out between the soldiers and the people. At last, on the evening of the 18th of April, 1775, General Gage, who was the British officer in command at Boston, sent about 900 soldiers to destroy some stores of powder and shot and flour, &c., which had been collected by the colonists at a place called Concord, sixty-eight miles away from Boston.

But the colonists were on the watch, and that night about 130 of them were gathered at Lexington, a place in the neighbourhood, and when the British soldiers came up they found the little band waiting to receive them. Still they offered no resistance. But Major Pitcairn, the officer in command, approaching, waved his sword and cried out "Disperse, you rebels!" and as they did not move he ordered his men to fire. Some say this order was not obeyed, and that the soldiers did not like to fire on those whom they regarded as their own countrymen and who spoke the same language. But others say that shots were fired and some colonists fell. Whatever may be the exact account, however, the English proceeded to Concord and destroyed the stores; and on returning to Lexington they found the colonists had been

reinforced, and a battle was fought in which they were successful, although they lost 273 men killed and wounded.

This was the first battle in the War of Independence, and the contest thus begun continued for eight weary years—until 1783.

THE BATTLE OF BUNKER'S HILL.

After the battle of Lexington the colonists collected on the hills around Boston and did what they could to annoy the English soldiers within the town. One night they marched through the marshes, which then lay around, and took possession of Bunker's Hill, which gave them a great advantage over the English soldiers. So on the morning of the 17th June, 1775, the English commander gave orders to his men to attack the colonists on this hill. Meantime the Americans had dug holes in the ground and raised up heaps of earth, behind which they could shoot at the English as they came up.

Behind these heaps they lay quietly until the English were near enough, and then they took deliberate aim and fired straight into them. Many men were killed, and a second and a third time did the English return to the charge, until at last they forced the colonists to retire. But though they were defeated the battle was of great use to them, for it caused them to make greater efforts than ever against their enemies.

THE DECLARATION OF INDEPENDENCE.

A number of deputies from the various colonies had met in May, forming what is called a Congress, and it was under its direction that the war proceeded. About the time of the battle of Bunker's Hill they appointed George Washington commander of their army, and by his skill, energy, and courage he was able in the course of a few months to make the English get into their ships in Boston Harbour and sail away. This was on the 17th March, 1776, and a few months later, on the 4th of July, 1776, Congress drew up a solemn Declaration stating that henceforth they stood absolved from their allegiance to the king of Great Britain and were an independent people. And on the 9th of September, 1776, they styled their new country of thirteen colonies, the *United States of America*, and later on declared their flag to be thirteen stripes, alternated red and white, and thirteen stars on a blue ground, corresponding

to the thirteen States then in the Union. This day, 4th of July, when the Declaration of Independence was first made, is regarded as the birthday of American freedom, and every year it is hailed in the United States as a national holiday. But

SURRENDER OF GENERAL BURGOYNE TO GEORGE WASHINGTON.

the winter following was a period of great gloom and depression; the army was reduced in numbers, and it suffered severely from poverty and privation. Nothing but the unflinching fortitude and courage of Washington, and the steady resolves

of Congress, could have sustained the sinking hopes and spirits of the country.

However, the next year's campaign was distinguished by the capture of General Burgoyne and his army at Saratoga. He had previously gained some victories over the Americans, but he was forced to surrender on this occasion. This was on the 17th October, 1777.

After this the war continued for some time with varying success. The British were often victorious, but the colonists seemed to gain strength from defeat, and, moreover, they were helped by the French.

THE END OF THE WAR.

At last, however, the long war drew to an end. The closing event was the surrender of Lord Cornwallis at Yorktown on the 19th of October, 1781. His army consisted of about 7,000 men, who were waiting here in entrenchments while Washington was watching the English under Sir Henry Clinton, in New York. Without allowing Clinton to guess his design he suddenly marched south, and being joined by the French troops under Rochambeau, fiercely attacked Cornwallis in his entrenchments, and in a few days the British General was forced to surrender with his army.

The English now gave up their attempts to subjugate the country and gradually withdrew their army. In the following year, terms of peace were agreed upon, and the independence of the United States was definitely acknowledged.

QUESTIONS.

When was the first settlement made in New Jersey? By whom was it made?
When was Pennsylvania first settled?
By whom? And who sent out the Quakers?
When were Maryland, North and South Carolina, and Georgia first settled?
How came Canada to belong to England?
What is the capital city of Canada?
Who was the commander of the French at the battle of Quebec?
Who was the English commander?
When was the battle fought?
How many States were there when the revolutionary war broke out?
What were the names of these States?
What caused the revolutionary war?
Tell me about the "Boston Tea Party."
Describe the battle of Lexington.
Tell me about the battle of Bunker's Hill.
What was the date of the Declaration of Independence?
How long did the war last?
Tell me about the surrender of Lord Cornwallis at York Town.
In what year was the Independence of the United States definitely acknowledged?

COMICAL DRAWING LESSONS.

NO. V.—HOW TO DRAW A SQUIRREL.

A loaf of brown bread
This looks like, to me.

A handle and spout
Makes a pot for our tea.

A line or two more
Makes our teapot look funny

But helps us to finish
Our nut-cracking "Bunny".

MAKING HAND SHADOWS ON THE WALL.

[When in the firelight you look at shadows on the wall, the iris of the eye is much smaller than in sunlight; the iris protects the eye from too *great* or too sudden a *glare of light*.]

SOMETHING ABOUT MY OWN LITTLE BODY.

LESSON V.—THE EYE AND ITS WONDERS.

(*a*) The iris in sunlight. (*b*) The iris at dusk.

THERE is probably no more wonderful or beautiful object in the world than the human eye—full as the world is of remarkable things. The beauty of the eye and the

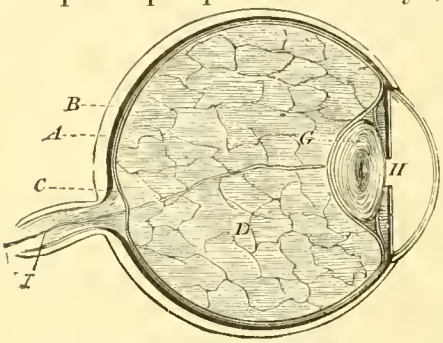
wonders of its parts, are not known to all, but they may be by any one who so wishes. We shall in this lesson tell about some of its parts and their uses.

WHAT IS THE IRIS OF THE EYE?

The first thing that takes our attention by its singular beauty, is the coloured ring within the eye, which is brown in some people, and green, grey, or blue in others. This coloured ring is called the *iris*. The iris appears to be surrounded by the "white" of the eye, and in the middle of it there is a dark circle. And now you must try a little experiment which is quite easy to do. Look in the looking-glass at the iris of the left eye while the other eye is closed. Now open the closed eye, all the while narrowly watching the iris of the left eye. You will see the dark circle which is bounded by the left iris become less in size. Again, in sunlight you will generally find that the dark circle is not much above the size of a pin's head (*a*), whereas at the dusk of evening it is nearly the size of a small button (*b*). From this it is plain that light has some effect on the iris; full daylight making the coloured ring wider, whereas in half-darkness it grows narrower. You have many a time heard a person say "Oh, how that light makes my eyes ache!" when the gas has been lit suddenly after they had been sitting for a while in the half-darkness of evening. You will now guess the reason. In the half-darkness the iris was a narrow ring; upon a sudden increase of light, it widened out in great haste. In fact the inside of the eye is like a room into which not more than a certain amount of light must be let, and the iris is the coloured curtain which decides whether there is too much or too little, widening out when there is too much, and narrowing when there is too little light. In a room facing the sun one draws down the curtain to keep out the great light; in the room of the eye, the curtain or iris widens so as to reduce the quantity of light which would otherwise fall into the eye.

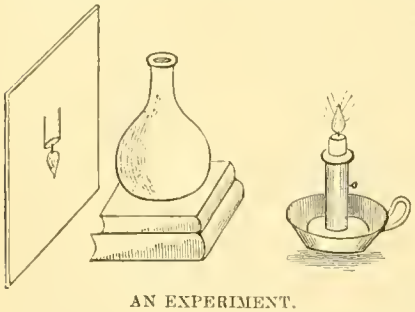
We will now see what other parts there are. First, there is the window, shaped like a watch-glass, which covers the iris and is surrounded by the "white" of the eye. Just behind the iris there is a small flattened globe, glassy-looking and colourless, which is called a *lens*. Light has to pass through

this lens as it enters the eye. Beyond the lens there is a globe not quite an inch across, filled with transparent jelly, and the wall of the globe consists of a violet and satiny skin. If one of the smallest of flies were inside this portion of the eye, it would appear to be inside a large ball-shaped room, with its wall "papered" with a violet-looking skin. It is on this violet wall that the light is thrown which enters the eye. And the light would appear to be streaming through the lens, like rays entering a darkened and one-windowed room. All the principal parts of the eye, in the order one would see them if an eye were cut up, are these: first, the watch-glass-shaped front; then the lens *G*, with the iris in front of it; two large chambers, one *D* filled with a jelly-like substance, and another *H* between the lens and the transparent front window containing a watery fluid. Light can pass right through the eye to the back at *C*.



SECTION OF HUMAN EYE.

We will try and learn now what the lens does, and this we can manage by means of another simple experiment. In the dusk of the evening take a round bottle, or flask, filled with water. Place it on the table. Put a lighted candle on one side of it, and on the other a sheet of paper upright. A picture or image will now be seen on the paper,—it is the image of the candle upside down. The image is much plainer when another sheet of paper with a small round hole in it is placed between the candle and the flask so that the light has to pass through the round hole before entering the flask. Take away the flask of water and there is no image on the paper. Therefore the flask makes the image out of the light coming from the candle. This simple little experiment shows the use of the lens there is in the eye just behind the iris. The light entering the eye passes through this lens and forms pictures


AN EXPERIMENT.

on the violet wall within the eye, just as the flask forms a picture on the sheet of paper. On this violet and cup-shaped expanse of skin, images of all kinds of outside objects are cast, so that there is a little picture within the eye not an inch wide, in which all the peculiarities of hill and valley, sky and cloud, farm and field, wood and river, are truthfully painted. A white cord or nerve stretching from the back of the eye to the brain carries the news of what sort of pictures are formed on this wall of the eye, and thus we are placed in the same relation with the twinkling star millions of miles off, as with the butterfly only a few yards away—we *see* them.

THE EYE ENABLES US TO SEE THE COLOUR OF THINGS.

We are also able to tell the colours of things, which is a great source of delight. But there are some people who cannot tell colours. A ruddy cherry is the same to them as a green leaf, so far as the colour goes, and when at a distance, all that they can tell one from the other by is their form, the cherries being of course round, while the leaves are more or less angular. Such persons are said to be colour blind, and ought to be in no employment where the lives of people sometimes depend upon their correctly making out the colours of signals, whether red or green, as on the railway.

So wonderful an organ as the eye is very delicately formed, and may get out of repair as easily as a watch, if one be not careful. It is surrounded, however, by several devices for its protection. For example, specks of dust are kept out of it very successfully by the hairs of the eyebrows and eyelashes. And if, after all, dust does get into the eye, then it is usually washed away by a flood of tears which start up and fill it. It is this same fluid, although in lesser quantity, which keeps the surface of the eye moist at all times.

QUESTIONS.

What is the name of the coloured ring in the eye?
What different colours is it?
What is the use of the iris?
What causes the iris?
What is behind the iris?
What is it called?
What is behind the lens?
What is on the wall of this globe that is behind the lens?
Tell me about the experiment which shows us what the lens of the eye does?
What stretches from the back of the eye to the brain?

KINDERGARTEN GAMES AND SONGS.

XII.—THE COOPER.

SOME six or eight children form a small circle, standing close to each other, to represent the barrel. Their hands must be placed on each other's shoulders; this is supposed to represent a hoop which the cooper is about to bind on the cask. Then other children take the part of the master cooper and his workmen. When the music begins, the coopers begin walking round the cask, keeping time with their hands and feet; those representing the cask stand still. The coopers use their left hands as if holding nails or screws, their right as hammers. They take a few steps and then pretend to use the tools, striking very light blows in time with the music. After a time the children forming the barrel move round, the coopers moving with them continue to hammer at the proper intervals in the same manner as before, and the song is continued, all singing in chorus.

I am a coo - per, and bar - rels I make, And
ham - mer all day un - til both my arms ache; My
voice and my ham - mer both mer - ri - ly sound, For I
laugh, and I sing, and I ham - mer all round.

THE CONSPIRATORS PLACING THE GUNPOWDER UNDER THE HOUSES OF PARLIAMENT.

THE HISTORY OF ENGLAND IN EASY LESSONS.

JAMES I.

[How James was king both of England and Scotland, and how he behaved very unwisely; and how Parliament was nearly blown up with gunpowder.]

ARREST OF GUY FAWKES.

AS Queen Elizabeth had no children, her cousin, the son of Mary, Queen of Scots, was the next heir to the throne, and he was made king when Queen Elizabeth died. His name was James, and as he was the first king of England of that name, he was called James I., but he was the sixth King of Scotland of that name, so he is sometimes called James I. of England and Sixth of Scotland. As he was king of Scotland also, both England and Scotland were thus, you see, under one king, and they have been under one king ever since.

Now, I am sorry to tell you that King James was one of the most foolish kings England ever had, and his wife also was a

very foolish and extravagant woman, so that both together they did a great deal of harm.

Instead of trying to do all the good he could for the people and endeavouring to make them like him, James seemed to think that he might take as much money as he liked from them, and he shut himself up with a few favourites and never troubled about the people or the good of the country at all. And the people were very sorry when they found that their new king was not so wise and good as Queen Elizabeth had been.

James's great fault was that he tried to do just as he liked—make what laws he pleased and take what money he chose from the people without the consent of Parliament to any of these things. And he said that no one had any right to find fault with the king, no matter what he did; that God had given him his power, and he could therefore do just as he pleased with the people. In other words, he tried to rule by what is called *absolute power*, and to maintain that he was king by divine right, and therefore superior to all laws. You will not quite understand these words now, but you must remember them, and you will understand them better by and by. It is most important that you should remember them. James taught his son Charles these things, and they caused him to be even a more unwise king than his father, and thus a sad civil war was brought on, as you will read presently.

THE STORY OF THE GUNPOWDER PLOT.

Among other unwise things that James I. did, was to treat those persons very badly who did not believe about religion as he believed. He was very severe with the Roman Catholics, and they, in revenge, resolved to blow up the King and the Houses of Parliament with gunpowder. This was very wicked of them. They found out some cellars under the Houses of Parliament, and they put a great deal of gunpowder in the cellars, and as they thought that the Parliament and the King would be all assembled together on the 5th of November, they resolved to set fire to the gunpowder on the evening of that day, and blow them all up.

But one of the Roman Catholics who knew of this plot had a friend, named Lord Monteagle, whom he expected would be

in the Parliament House that night, and he wrote him an anonymous letter—that is, a letter without signing his name to it and written in a strange handwriting—warning him not to go to the Parliament, as a sudden and terrible blow would be struck which would kill them all, and they should not see from whose hand it came. Lord Monteagle showed this letter to the King and the Council, and though some thought that it was all nonsense, and that the letter was only sent to frighten Monteagle, yet others thought that there was a wicked plot to blow them all up with gunpowder. So persons were set to watch, and they found a man named Guy Fawkes waiting to set fire to the powder. Of course he was taken to prison and punished, but the other plotters fled into the country, where most of them were killed. What a good thing it was that this wicked plot was discovered in time, was it not?

Before closing my story about James I., I must tell you of two other bad things which he did. He caused the brave Sir Walter Raleigh, who was one of the cleverest men of Elizabeth's reign, to be beheaded to please the Court of Spain; and he did all he could to marry his son Charles to the Princess of Spain, although the people and the Parliament were much opposed to the match, and it was finally broken off.

One good thing was done in the reign of James I., and I must tell you of it now. The translation of the Bible which we now have, was made. Nearly fifty ministers were engaged in the work for three years—1607 to 1610—and if you turn to your Bible, you will see the address of the translators to James I. In 1625 James died, aged fifty-nine.

THE STORY OF CHARLES I. AND THE CIVIL WAR.

The eldest son of James I. was named Henry, but he had died before his father, when he was only nineteen, and so James's second son, Charles, became king at his father's death.

He was married to Henrietta Maria of France, and most people believe he was a good husband and father, but he was an unwise king: that is, his foolish father had taught him so many absurd things about his power and that he should always do as he pleased, and so, instead of doing all the good he could to our dear England, and setting an example to the people of keeping the laws and doing what was right, he seemed to

act as though he fancied he might rob the people just as he pleased, and if they did not pay what money he wanted he could put them in prison. In these evil acts he was helped on by a bad man, named Buckingham, who had been one of the unwise friends of his father.

This man persuaded King Charles to go to war with France, just because one of the great men in France had offended him. The English people were very angry at this, because although they were ready to fight for the defence of their country or for its honour and glory, yet they could not think of spending a vast deal of money and of losing a great many Englishmen in battle just for a cruel selfish man like Buckingham. But Charles persisted in going to war, and then a man named Felton stabbed Buckingham at Portsmouth. The war did not last very long, and was unsuccessful.

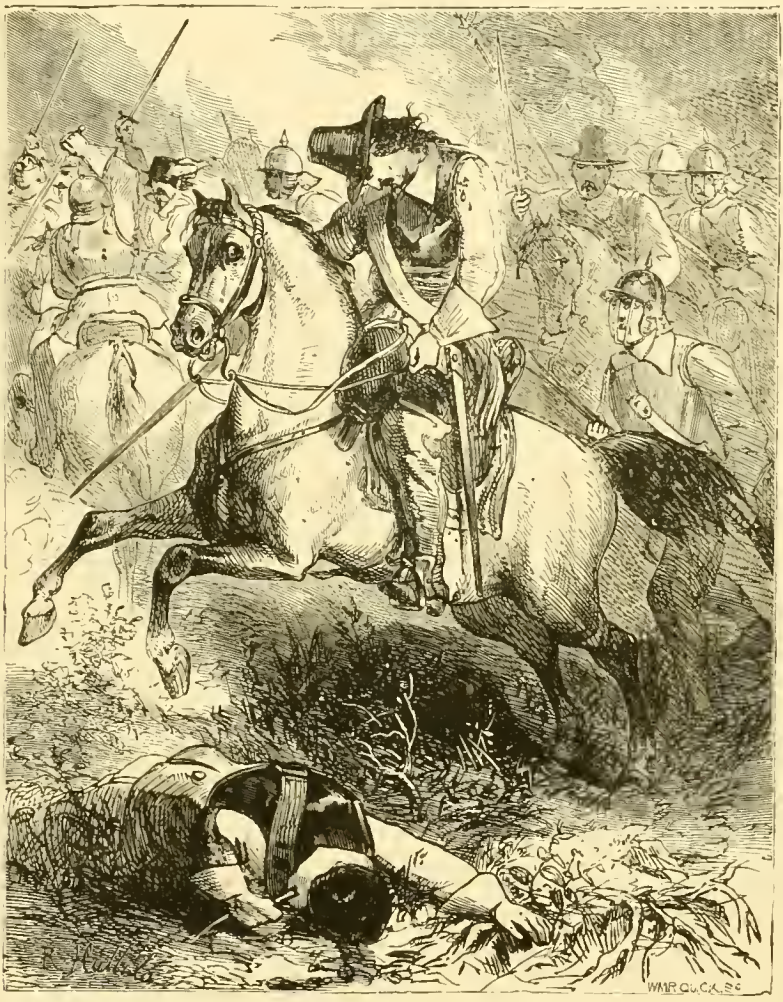
The people hoped that Charles would now get better advisers and friends; but he did not, and the ill-feeling between the King and his people grew worse and worse. The King continued to make the people pay him a great deal of money by unlawful means, and the most illegal of these taxes was one called "Ship-Money." This was a tax which the people were sometimes asked to pay to prepare ships for war. But Charles made them pay it when there was no war, and he did not use it for preparing ships to defend the country. And this made the people very angry indeed, and some of them refused to pay the money. Mr. John Hampden, a gentleman of Buckinghamshire, was one who refused to pay.

DEATH OF JOHN HAMPDEN; CROMWELL'S IRONSIDES.

At last the King's quarrels with the House of Commons became so bad and he did so many unjust things, that the members of the Commons drew up a famous document called "The Remonstrance," complaining of his government. Charles promised to do better in future, but his acts soon showed he did not mean to keep his promises. Soon afterwards he ordered some of the members of the House of Commons to be put in prison, but this order was not carried out. Then the Queen went to France and Holland to get some foreign soldiers to fight against the Parliament, and the civil war began. This was in the autumn of 1642. Early in the war John Hampden

was killed at the battle of Chalgrove ; but in Oliver Cromwell, who was now becoming a well-known man, the Parliament had a greater soldier and statesman than even John Hampden.

Cromwell was a very brave and wise man, and the success of the Parliament was largely due to him. He drilled his men so



DEATH OF JOHN HAMPDEN AT THE BATTLE OF CHALGROVE FIELD.

well and trained them so magnificently that they soon became able to beat nearly every one opposed to them. They were known as "Cromwell's Ironsides," and the dashing cavaliers of the King, and later on, when they fought England's battles on the Continent, the best troops in Europe, were swept down like

grass before the scythe, by the terrible charges of these Puritan dragoons.

It would take quite a big book to tell you all about this civil war, and when you are older you must read about it in larger histories. All I can tell you now is that many terrible battles were fought, but at last Cromwell and his soldiers (who were called Roundheads because they wore their hair closely cropped) were everywhere victorious over the King and his men, who were called Cavaliers. And I am very sorry to tell you that the end of the matter was that Charles I. was beheaded. We are grieved when we think of this, because he loved his wife and children so much, and in many things we believe he was a good man; but he was a very unwise king, and he had many sad faults, mainly owing to the bad training his father had given him, and the bad advice his wife and his friends constantly urged upon him. He was always breaking his promises and trying to do just as he liked with the people, so that he and his friends would not allow that they had any right to even their own lives, or their money or houses, or lands or liberties, or anything, if he, the King, chose to take them. And all this was, of course, very wrong and very foolish.

THE COMMONWEALTH.

When Charles I. was beheaded, Cromwell was really the ruler of England, and on the whole he ruled wisely and well. He made the name of our dear country famous everywhere. England's glory, which had grown dim during the reigns of James and Charles, now shone as brightly as in the days of the Armada. Oliver protected the Protestants in the Alps against oppression, and in several wars by sea and land England was successful.

Cromwell would not be called king; the title which he finally took was Lord Protector of the Commonwealth.

Many great men lived during the times of the civil war. I will tell you the name of one very great man. It was JOHN MILTON. He was a very great writer, but what we know and love him most for is his poetry. He is one of England's great men, and by and by I hope you will read and study his poetry. Milton was also Secretary to the Council of State and to Cromwell.

ABOUT THE REIGN OF CHARLES II. AND THE GREAT PLAGUE AND GREAT FIRE OF LONDON.

Five years after Cromwell was made Lord Protector, he died, and some of his friends wished his son Richard to be Protector after him, but Richard was a quiet, shy man, not fit to rule in those troublous times, and after a few months he very wisely went to his home at Cheshunt, and lived the life of a quiet country gentleman.

So then the people agreed that Charles II., the son of Charles I., should be king, and they would get him to promise that he would not break the laws and oppress the people, and so, in May, 1660, Charles was proclaimed king.

He was a merry, good-natured man at first, but he came to be very extravagant and harsh, and did many wicked things; so that if it had not been for fear of another civil war, I think the people would have sent him away again.

There were two very terrible things which happened in London during the reign of Charles II. The first of these was the Plague. This was a horrible illness which attacked people, and it was so severe that hundreds and thousands of persons died every day. There were so many deaths that the bodies could not be buried in the ordinary way. Carts used to go round the streets at night, and the bodies were put into them and carried to immense graves near London, where hundreds were buried together. A man with a bell used to go round with the cart, so that people might know when it was coming. On nearly every door, the pathetic words might be seen, "Lord, have mercy on us." This sentence was put on the doors of those houses whose inmates had the plague. During that terrible summer of 1665, at least 100,000 persons are said to have perished, and the plague did not abate until the cooler airs of autumn began to blow.

Then the second terrible thing was a dreadful fire, which burned down a great portion of London. In those days the streets were very narrow, and built mostly of wood, and the upper parts bulged out over the lower. The fire lasted nearly four days, and though everybody tried to stop it, it went on burning until thousands of houses and many churches and public buildings were all burned down.

But good came from this evil, for when London was rebuilt, the streets were made wider and the houses were better built of brick and stone.

JAMES II. AND THE REVOLUTION OF 1688.

I have not time to tell you of the many bad things Charles II. did, but must hasten on to tell you about his brother, James II., and how the people sent him away.

Charles II. died in 1685, and his brother James II. was made king. He was even a worse king than his brother or his father. He was a Roman Catholic also, and in addition to wishing for absolute power, he was determined to undo all that had been done at the Reformation, and to make England a Roman Catholic country again.

James behaved so very cruelly and unjustly, that at last a number of wise lords and gentlemen decided to send over to William, Prince of Orange, who had married James's eldest daughter, Mary, and ask them to be king and queen. William was a Protestant, and the nearest male relative of the King except the King's infant son, and he had agreed to rule always by means of a Parliament, and never to let the Pope have anything to do with the government of England, and to see that all the people were treated with justice.

So William came over with many men, and James, finding that all Englishmen disliked him so much that no one would take his part, fled away with his wife and infant son to France.

This was in the year 1688, and the sending away of James II. and the coming of William and Mary is called the Revolution of 1688.

WILLIAM III. AND MARY II.

The reign of William and Mary will always be looked upon with gratitude by all good Englishmen and Englishwomen, because in it many very difficult things were settled wisely, and many other wise things were done for the laws and religion, and commerce and general prosperity of our dear land of England. Many of these things you are too young yet to understand, nor how they were brought about, but I will try to tell you something of them.

Well, then, it was agreed that William and Mary were to be

king and queen, and if they had no children, Mary's sister Anne was to be queen, and James II. and his son were never to be the kings. No sovereign of England was to make or unmake laws, levy taxes, or keep a number of soldiers without

THE DEAD CART GOING ROUND THE STREETS DURING THE GREAT PLAGUE IN LONDON.

the consent and help of Parliament; no person could be put in prison without a fair trial before a judge; and although the Reformed Church was to be the established religion of the country, Dissenters were not to be persecuted; and instead of the idea of the king being above all laws, the king was to keep

the laws as much as other people. It was also settled that the king or queen of England must be a Protestant, and that Parliament must meet every year.

The trade with the East Indies came to be very great in the reign of William and Mary, and many things, such as pepper and cotton and muslin, and silk and tea and ivory, precious stones, &c., &c., were brought to England.

THE REIGN OF QUEEN ANNE.

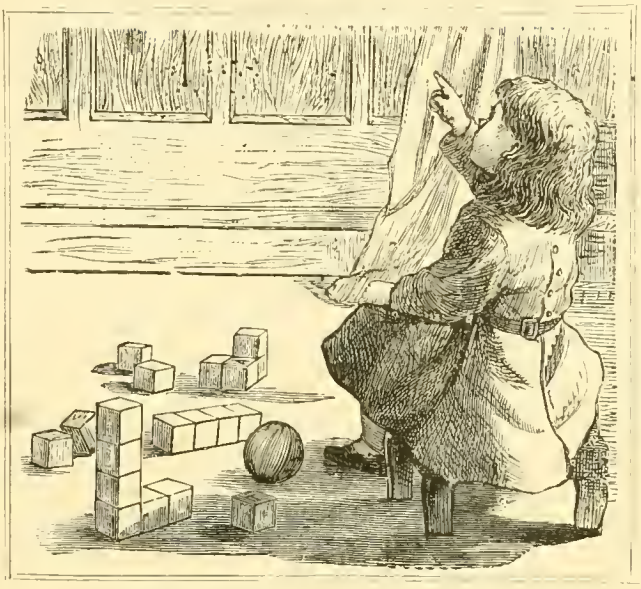
William and Mary reigned for six years, and then Queen Mary died of the small-pox. She was a good and clever woman, cheerful and good-tempered. William lived for seven years afterwards, and then he died, and Anne, the sister of Queen Mary, became queen, as had been arranged. This was in 1702.

One thing of very great importance which was done in her reign was the Union of the Parliaments of Scotland and England. You will remember that I told you that ever since the reign of James I. Scotland and England were under the same sovereign, but until the reign of Queen Anne they had different Parliaments. At last, however, it was settled that a certain number of Scotch gentlemen should come up to London to the English House of Commons, and a certain number of Scotch Lords should sit in the House of Lords with the English Lords, and this Union of the Parliaments and of the two countries, as they now are, and have been for very many years like one country, has been a very good thing.

The greatest general of Queen Anne's reign was the Duke of Marlborough, and he won a great many battles. The greatest of these was the Battle of Blenheim, which was fought in 1704, when the English gained a great victory and saved a great many people from the cruel government which King Louis XIV. of France set up wherever he got a victory. It was in the reign of Queen Anne also that the English, under Admiral Rooke, took the great fortress of Gibraltar.

There were many clever men lived in this reign. There was a great poet whose name was Pope, and another great writer called Addison.

But poor Queen Anne had many troubles, for her husband and all her children died before her; she was a kind and good-natured woman, but not at all clever. She died in 1714.

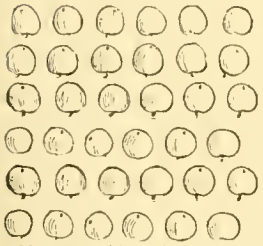


LEARNING DIVISION WITH THE CUBES.

Mamma left Lucy to do a little sum, and on her return Lucy cried out, "Oh! mamma, I can do the little sum you left me; there are eighteen cubes, and there are three sixes in eighteen." I hope you will get on with your sums as well as Lucy did.

PICTORIAL ARITHMETIC.

XI.—DIVISION (*continued*); CONCLUSION.



Here are thirty-six apples to be divided among six children. How many will there be for each? *SIX.*

IN working Division sums, we may also make use of our Multiplication tables a great deal. For instance, the quickest way to have found out the answer to the sum about the twelve cubes would have been to say to ourselves: "There are twelve cubes to be divided among four persons; four times 3 are twelve—so the answer must be 3 cubes to each person."

Let us work a Division sum together, taking 5 as our number. We may suppose that there are

five persons, and five thousand two hundred and sixty-five books to be divided amongst them. Let us see how many books each person would get.

This is how we should put the sum down,—

$$5\,)\,5\;2\;6\;5$$
$$1\;0\;5\;3$$

We begin at the left hand corner, and say—how many fives in five? Well, of course, there must be just one, so down goes 1. The next figure is 2. We cannot get five out of two—can we? So we just put 0 down to show that we cannot do it, and take in the next figure, which is 6. The 2 and the 6 taken together make 26. Now how many times will five go into 26? Let us see—five times 5 are 25. That is near enough; we put down the 5, and put the 1, which is left over, before the next figure of the sum, which is 5. The two figures side by side make 15. Five will go just three times into 15,—for five times 3 are 15, are they not? So down goes the 3, and there is an end of our Division sum, and your answer is that five thousand two hundred and sixty-five books divided among five people, would give each person one thousand and fifty-three—or, which is the same thing, ten hundred and fifty-three. Fancy having so many books to do just what you liked with.

You have now learned the first four great rules in Arithmetic, but you must practise them many times over until you know them perfectly before you go on to the more advanced rules by and by.

BREAD-FRUIT TREE AND BANANA.

STORIES OF THE PLANTS AND FLOWERS.

FOOD PLANTS IN HOT COUNTRIES.

THE YAM.

The Yam has an eatable fruit, singularly resembling a human hand in shape. It is one of the most useful of African food-plants.

WHAT do you think of a tree that grows loaves, so to speak, ready made! There is some such tree, which is extremely useful where it grows, and that is in the South Sea Islands. The black inhabitants of those coral islands are not put to the same trouble of planting, reaping, and bruising corn as we are, as their loaves hang from the branches of the Bread-fruit tree.

The tree rarely grows more than forty feet high. The fruit is green, and as big as a large melon in size. Captain Dampier, who gave the earliest account of it in 1688, says: "The natives of Guam use it for bread.

They gather it when full grown, while it is green and hard; then they bake it in an oven which scorcheth the rind and maketh it black; but they scrape off the outside black crust, and there remains a tender thin crust; and the inside is soft, tender, and white, like the crumb of a penny loaf. There is neither seed nor stone in the inside, but all of a pure substance like bread. It must be eaten new, for if it be kept above twenty-four hours, it grows harsh and choky, but it is very pleasant before it is too stale."

The tree has an interesting history. The learned men who went with Captain Cook on his voyages brought back such good accounts of the Bread-fruit that the planters of the West Indies desired very much to have it planted on their islands. They asked King George III. to send them some of these plants. A ship was therefore sent to the Society Islands to get a load of plants in tubs and pots, so that they could be planted in the West Indies. Lieutenant Bligh, who had been with Captain Cook, was in command of the ship. When the vessel had been four-and-twenty days on its way to the West Indies with the plants, the sailors mutinied, and turned Lieutenant Bligh and a number more men adrift in a boat. No good came of the mutineers; some were hung, and some were killed. A few landed on Pitcairn Island, and their descendants live there to this day. Bligh and his comrades were saved after undergoing great hardships, and he was appointed to go again to the South Sea Islands. This time the voyage was a success, and Bread-fruit trees were distributed among the colonists at St. Helena, St. Vincent's, and Jamaica.

SOMETHING ABOUT THE BANANA.

The Banana, with its long, bright leaves and pendent clusters of fruit, is another food plant, and it is one of the most beautiful among the trees of tropical regions. Though enthusiastic naturalists may have overstated the properties of this valuable plant (for the Banana is a somewhat watery food), the tree yields a very important article of diet; indeed, in some regions the Banana, like the Bread-fruit, takes the place of corn. It can be eaten raw in the unripe state, or can be dried, and in that condition is frequently laid up as a winter store, for it will keep good for a long time. When dried it is

often converted into meal, from which a kind of bread is baked. Bananas are now being introduced into the markets of Europe.

A STRANGE RELATIVE.

It will appear strange to you that so useful a plant as the Bread-fruit should be akin to the Upas Tree of Java. Yet such is the case. You have heard of the Upas Tree no doubt before, how that it is said to give out so unwholesome a vapour that all animals and plants which come near it die, and how that the juice flowing from its wounded stem is one of the most deadly poisons. It has also been reported that where the upas exists, there is nothing to be seen but a desert region whitened here and there by the bones of destroyed animals. Now it is very hard to believe all this of a tree which belongs to the same tribe as the Bread-fruit, and it appears that it is nearly all untrue. You may go near the Upas tree without being destroyed, and it grows in the woods of Java side by side with other trees, which are not injured. Its juice, however, is poisonous, so that if anyone were wounded by an arrow whose barb had been smeared with Upas Tree juice, he would die. On this matter of kinship of one plant to another, we may now say a few words, telling you before doing so that although it is an extremely interesting subject, one sometimes takes a dislike to it because of the foreign words botanists have used. We shall, however, use as few of them as we can, and these few we will explain.

THE UPAS TREE.

Now in these short lessons we have roamed nearly all over the globe, both in the Old World and the New, selecting such examples of plants as we wanted. The botanist, however, studies *all* that he comes across, and when he meets with a new plant he examines it keenly to try and find out what there is new about it, and to what other plants it is related. In this matter of relationship he is guided by resemblances. If he found such a new plant, he would want to know what other plants it resembled most. It would either bear a flower at some time of the year like the buttercup and horse-chestnut, or like the fern it would not bear one at any time. Flowering plants are called *phanerogams;* non-flowering plants are named *cryptogams.* Phanerogam is a word which means that the flowers and seeds are seen; cryptogam means, on the other hand, that flowers and seeds are not seen. If we suppose, then, that the new plant had a flower, it would plainly be one of the phanerogams and not related to a cryptogam. It would now be necessary to learn what sort of a flowering plant it was, because there are two sorts—endogens and exogens. These two words you have seen before, and know their meaning. Having made out the plant to be either an exogen or an endogen, our botanist would now proceed to find out to what tribe of endogens or exogens it belonged. And so he would proceed until he was fully satisfied he had found out the true place of his new plant in the kingdom of vegetables. With some men, such work is a labour of love. There lived a lad in Sweden, called Carl Linn, at the beginning of the last century, who had a passion for plants and flowers. He studied them always, and wandered up and down, by river and rivulet, over mountain and meadow, so that when he became a man, he knew more perhaps about plants, &c., than any other man of his time. He thoroughly sorted them, placing those that were like each other all together in the same class, and his classification is now known as the Linnæan classification.

And now for a few words about fruits. We use the word fruit in a very careless sort of way, as we apply it to nearly any kind of sweet and fleshy eatable that vegetables produce. The botanist, however, applies the word to the full-grown pistil of a plant, and this may not be eatable. The pod of a pea plant, for example, is the fruit of the plant.

BENJAMIN FRANKLIN ADDRESSING THE CONVENTION.

AMERICAN HISTORY.

IV.—THE CONVENTION AT PHILADELPHIA, 1787; THE GREAT CIVIL WAR.

BENJAMIN FRANKLIN.

WHEN the War of Independence was over, the Americans set themselves to grow corn in their fields again, and to improve their businesses, and to repair the great damages that had been done while the fighting was going on; they also set themselves to make laws for the proper government of the country.

A number of men met together for this purpose at Philadelphia, in May, 1787, under the presidency of a wise and good man, named Benjamin Franklin, who had largely aided the conclusion of peace. This meeting was called a Convention, and it consisted of delegates or representatives from all the thirteen colonies, whom their fellows had asked to go up to this Convention and arrange about the laws and the government.

After considering together for some time, they agreed upon the principal things, and the "Constitution," *i.e.*, the system

of government, was established. The Americans decided not to have a king or queen, but that each of the States should have a separate and independent legislature (legislature is a sort of parliament) for the management of its own affairs, but all the States were to be united together like one country or nation, and were to be ruled in other matters by two houses of legislature; one, called the Senate, elected for six years, and the other, called the House of Representatives, elected for two years, and delegates were to be sent to this House from the different members of the confederacy. And instead of a king or queen, a President was to be elected every fourth year by the free voice of the people. It took some time to see if all were agreed about this new plan, and it was not fully ratified until 1789, when George Washington was elected as the first President, and the first Congress under the new system of government met at Philadelphia.

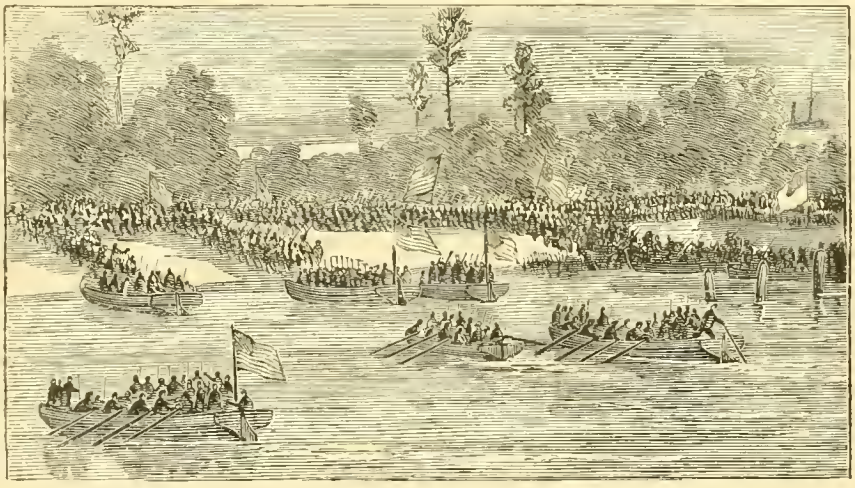
This city was the seat of the national government, *i.e.*, the Congress met there until 1800, when it was removed to the city of Washington, and Congress has met there ever since. When George Washington's first four years of Presidency were completed, he was elected a second time, on the 4th of March, 1793, but resigned on the 17th September, 1796. Not long afterwards he died. John Adams was the second President. He was elected on the 4th March, 1797; and Thomas Jefferson was elected the third President on the 4th March, 1801. The State of Louisiana was purchased from the French in 1803, and added to the Union. The State of Ohio had been added in the previous year. James Madison was elected fourth President in 1809.

A year or two later, in 1812, I am sorry to say, another war with Great Britain, the mother country, broke out. This was from certain causes connected with a great war in Europe which was then going on. All of the States, however, did not approve of this war, and some of them—the New England States as they are called—threatened to break away from the Union if it was carried on. But it went on for a few years with varying successes on both sides until peace was decided upon at the end of 1814. During the war many sad events took place. The Americans unsuccessfully attacked Canada, which, as I told you before, belongs to England, and the

English soldiers burned the public buildings of Washington, but were afterwards driven back from New Orleans with great loss. There were also many engagements between ships, the chief of which was between the Shannon and the Chesapeake, in which the English were victorious, the Chesapeake, the American ship, being captured.

And you must remember that all this time the English were engaged in a far greater and more terrible war with the French in Europe.

Meanwhile the Americans continued to elect their Presidents as I told you. Here are the names of some of their Presidents, after the second war with England. James



SOLDIERS CROSSING THE MISSISSIPPI DURING THE CIVIL WAR.

Monroe was elected President in 1817; John Quincy Adams in 1825, and Martin Van Buren in 1837. Up to this time, moreover, as new tracts of ground were occupied, several other States were made and added to the Union. Thus, besides others, there were added Indiana in 1816; Illinois in 1818; Arkansas in 1836, and Michigan in 1837.

ABOUT SLAVERY, AND THE TERRIBLE CIVIL WAR.

Before the War of Independence, all the States contained slaves. These were negroes—black people—from Africa, who were made to work without receiving money for their labour. Their master gave them food and clothes, and also little houses to sleep in. And they were bought and sold just like goods.

Well, in 1783 the declaration in the State of Massachusetts Bill of Rights that "all men are born free and equal," was declared in the Boston supreme court to bar slave-holding in that State. A year or two later, in 1787, Congress unanimously passed the celebrated ordinance forbidding slavery or involuntary service in the country north-west of the Ohio river. But after this several of these States prayed to be relieved from this prohibition. Thus, you see, there were two parties or sets of people in the States, one wishing to go on keeping slaves and others wishing slaveholding to be abolished in *all* the States just as it had been abolished in some of them.

But the enormous increase in the growth of cotton in the Southern States led to a great increase in the demand for slave labour, and at length when, in the year 1820, the State of Missouri was admitted into the American Union, a very clever man whose name was Henry Clay drew up an enactment, now known as the *Missouri Compromise*, by which slavery was permitted in part of that State, but prohibited on the northern side of a certain limit; this again happened when some years later (1845) the State of Texas was admitted to the Union; and another compromise was again effected when in 1850 California was admitted.

But in 1854 the *Missouri Compromise* was really set aside, when Nebraska and Kansas were admitted to the Union as slave-holding States, these being situated within the line at which slavery was to cease. The quarrel between the Northern and Southern States had now become very severe, when in March, 1860, a new President came on the scene, Abraham Lincoln. He was a very clever man, of upright character, and truly pious. He was much opposed to the maintenance of slavery, and his election brought things to a climax in the South. The Legislature of South Carolina called a Convention, and soon after, eleven of the Southern States, one after the other, seceded from the Union—that is, resolved to be a country by themselves, make their own laws, and choose their own President. On the 18th February, Jefferson Davis was inaugurated President of the "Southern Confederacy," at Montgomery, Alabama. Soon after this, the dreadful war began. I have no room here to tell you any of the details of this sad war. It lasted for about four years, and in that

terrible period many battles were fought, and thousands of men were slain. The last battle was on the 13th May, 1865, in Texas, and on the 26th the Southern army surrendered.

About a month before this, good President Lincoln was cruelly shot by a wicked assassin named Wilkes Booth, but the great work was nearly accomplished, for after the end of the war slavery was completely abolished. Andrew Johnson, the Vice-President, was then made President instead of Abraham Lincoln. Jefferson Davis was captured at Irwinville and put in prison. He was then tried and condemned to be kept in prison for three years.

Thus ended the great American Civil War in the complete defeat of the armies of the slave States, and, as a necessary consequence, in the total abolition of slavery.

AFTER THE WAR—CONCLUSION.

When the war was over, the Americans began to work harder than ever to repair the terrible losses they had sustained. And they worked very, very hard, and they are now a very great and powerful nation. And the warmest feelings of friendship exist and have existed between the English and their "American cousins" over the Atlantic,—which is, as it always should be, for we belong to the same race of men and speak the same language. Once or twice, when there seemed to be a likelihood of a dispute, it was decided to submit the difficulty to arbitration instead of fighting about the matter, which was much better, was it not?

General Grant was elected President after Johnson, and again elected in 1873. Rutherford Hayes was elected in 1877, and in 1881 a very great and good man, named General Garfield, was elected President; but a wicked man, named Guiteau, shot him on the 2nd of July, 1881, and all the English people as well as the Americans were very sorry and very indignant also at such a terrible thing. Arthur, the Vice-President, became President at General Garfield's death.

And this is the end of our little history of America. I have tried to tell you some of the principal things in a pleasant and easy manner, so that you may be able to understand something about it, and you will be able to read larger histories by and by when you are older.

FIRST STEPS;
OR,
EASY LESSONS IN READING & SPELLING.

XI.—WORDS OF THREE SYLLABLES, ACCENTED ON THE FIRST.

ad-a-mant
ag-i-tate
al-co-hol
al-i-ment
al-i-quot
al-man-ac
am-i-ty
am-nes-ty
an-ces-try
a-pri-cot
au-di-tor
bal-con-y
ban-ish-ment
bank-rupt-cy
bat-ter-y
big-ot-ry
bot-an-y
boun-te-ous
bri-er-y
buf-fa-lo
but-ter-y
by-stand-er
cal-i-bre
cal-i-co
car-a-way
cast-a-way
cav-al-ry

OLD KING COLE.

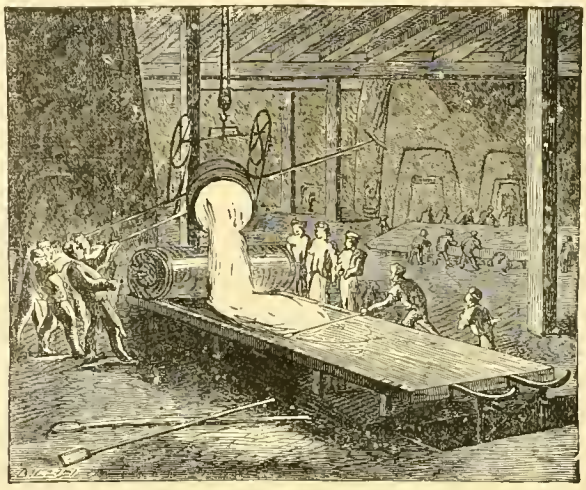
cen-tu-ry
clem-en-cy
com-i-ty
com-pli-ment
con-stan-cy
con-tra-ry
coun-ter-feit
cred-i-tor
cru-el-ty
cur-ren-cy
de-i-ty
den-si-ty
di-a-lect
di-a-per
di-a-mond
dig-ni-ty
dim-i-ty
ed-i-tor
em-bas-sy
en-e-my
en-mi-ty
en-ter-prise
en-ti-ty
ep-i-cure
ev-er-y
fal-la-cy
fe-al-ty
flat-ter-y
fur-bel-ow
gal-lan-try
gal-ax-y
gen-tle-man

WORDS OF THREE SYLLABLES, ACCENTED ON THE FIRST.

hal-i-but
her-e-sy
hol-i-day
hus-band-man
in-di-go
in-dus-try
in-fan-cy
in-fant-ry
in-ju-ry
in-tel-lect
in-ter-est
lax-i-ty
leg-a-cy
le-ni-ent
lev-er-et
lev-i-ty
lin-i-ment
loy-al-ty
lux-u-ry
mer-chand-ise
mer-cu-ry
min-is-try
mis-cre-ant
moun-tain-ous
mys-ter-y
nov-el-ty
of-fi-cer
or-i-ent
pa-ci-fic
par-a-pet
par-o-dy
ped-i-ment
pen-te-cost
per-ma-nent
pet-u-lant

THREE BLIND MICE.

pol-i-cy
pol-i-tics
pol-y-glot
por-ti-co
pros-o-dy
pun-gen-cy
pun-ish-ment
quad-ra-ture
quar-rel-some
rav-ish-ment
rem-e-dy
re-qui-em
rev-el-ry
rev-er-ie
ri-fle-man
sed-i-ment
se-ri-es
sen-a-tor
sil-ver-y
skel-e-ton
sol-ven-cy
sum-mar-y
sup-po-sal
ten-den-cy
tif-fan-y
u-ni-corn
ver-ti-cal
ver-ti-go
vex-a-tion
vil-lain-y
wa-ter-fall
war-ri-or
zea-lous-ly
zo-di-ac
zo-o-phyte
zy-mot-ic



CASTING PLATE-GLASS.

CHEMISTRY FOR CHILDREN.

LESSON VII.—MORE ABOUT SOLUTIONS; ALSO SOMETHING ABOUT SAND AND GLASS.

Bringing the molten Glass from the furnace.

IN the little experiment of which I told you at the end of the last chapter, it was quite clear from the first that it was a very different kind of solution from any we had been before speaking of, because when salt, sugar, or treacle were dissolved in water, there was no injurious gas given off, and there was no alteration in the colour of the liquid similar to what takes place when copper is dissolved in nitric acid, for the nitric acid is colourless or only slightly yellow, and the copper is of a reddish colour, but the solution of copper is of a beautiful blue.

Another thing, one cannot get the dissolved copper out of this blue solution in the same way as salt can be got out of water. It is very evident, then, that where a substance is dissolved like this copper, with a gas rising from the liquid while it is being dissolved, and cannot be got back again by simple evaporation, there has been a change produced, or in other

words, a new compound made. The compound made in this experiment is the blue nitrate of copper.

We can therefore have simple solutions without any chemical change, and we can make solutions where there is a decided chemical change.

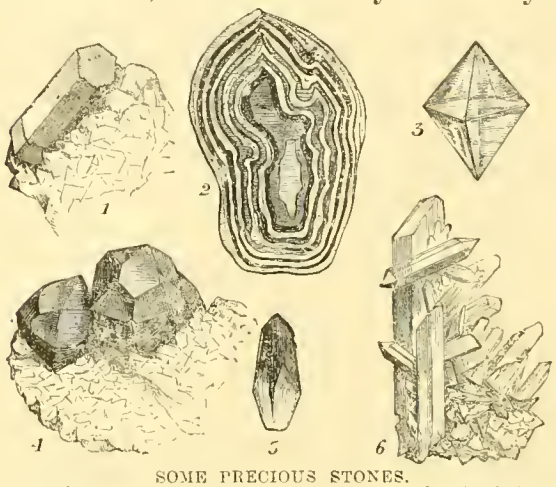
SAND AND STONES.

We will now take leave of liquids for a while at least, and tell you something about stones. There is scarcely anything so worthless as the stones lying under one's feet. We kick them about, and wicked boys sometimes pick them up to throw at the poor birds. Still even one of these common stones is a thing full of interest. Pick up that bit of sandstone lying in the road before you, and examine it. Its surface is rough, and the stone looks as if it had been made of tiny round bits of sand all cemented together. As it appears, so it is. This piece of sandstone, strange as it may seem to you, was formed ages ago, out of the sand collected at some river mouth, sea shore, or sea bottom. Upon balancing it in the hand it seems to weigh about a pound. What is there in it to make this weight?

Sand is a compound, and it consists of the gas oxygen, and another element called silicon. And how much oxygen do you think there is in it? Why there is close upon half a pound! Yes, in that little stone you are handling, only measuring a few inches each way, there is over five cubic feet of oxygen squeezed as it were into so small a bulk. There it has probably remained since the creation of the world, and there it will very likely stop until the end of the world, for you must know that this oxygen and this silicon have so strong a liking for each other, that it is with the utmost difficulty that they are torn asunder. The tearing of oxygen from mercury, as in the experiment we did, is quite babywork compared with the task of pulling oxygen and silicon from each other.

What a great amount of oxygen must be stored up in this way! In some districts sand and sandstone appear nearly everywhere. The rocks are made of the sandstone; and sand is seen in the roads, in the rivers, and on the sea-shore. The sand and sandstone of course only differ from each other, as ground and lump sugar differ; chemically speaking, the sand and sandstone are both the same, and the only difference is

that one consists of fine bits, and the other of fair-sized lumps. On the road, the sand is made in the wearing down of the sets and sandstone rubble by the stamping of the hoofs of horses, and the grinding action of the wheels of carts, waggons, and carriages. In the river and on the sea-shore, sand is formed by the rubbing of one stone against another. The on-rushing water and the restless waves rattle the pebbles about among each other, so that if they have any rough corners they soon get rubbed off. But as we before observed, it is no matter whether it is a big bit or a little bit of sandstone; whether a portion of a large cliff or only a tiny grain of sand, *oxygen is in both*, and forms close upon one-half their weight, and the remaining half of the weight is made up of the element silicon.



SOME PRECIOUS STONES.
1. Emerald. 2. Agate. 3. Garnet. 4. Ruby. 5. Diamond. 6. Rock Crystal.

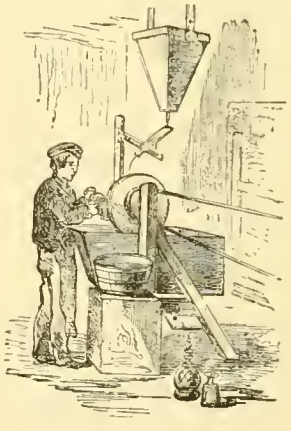
You have melted wax many a time before the fire, and noticed how it softened, and when it became cold it hardened again. Sand behaves something in the same way when a very great heat is applied to it. Indeed, the heat which is necessary to soften it in this way, without breaking it up into its elements, would be enough to tear asunder the elements of such a compound as *red precipitate* with the greatest ease and rapidity. Sand and sandstone may be melted like this in the inside of the earth where there is a very very great heat, and in cooling it may form beautiful crystals, and if it gets coloured with the oxide of some metal then it will form precious stones.

One may call *rock crystal* crystallized sand, and very beautiful it looks, with its six equal sides. Then again such minerals as *agate*, *opal*, *jasper*, *carnelian*, and *onyx* have the same proportions of oxygen and silicon in them as sand, only they are crystallised and coloured with the oxides of metals. The flints of various curious forms which one sees sticking in the sides of chalk rocks have also the same composition as sand.

Sand is used for various purposes. It is employed to mix with lime in making mortar; it is used for moulding in iron works; and it is used in making glass.

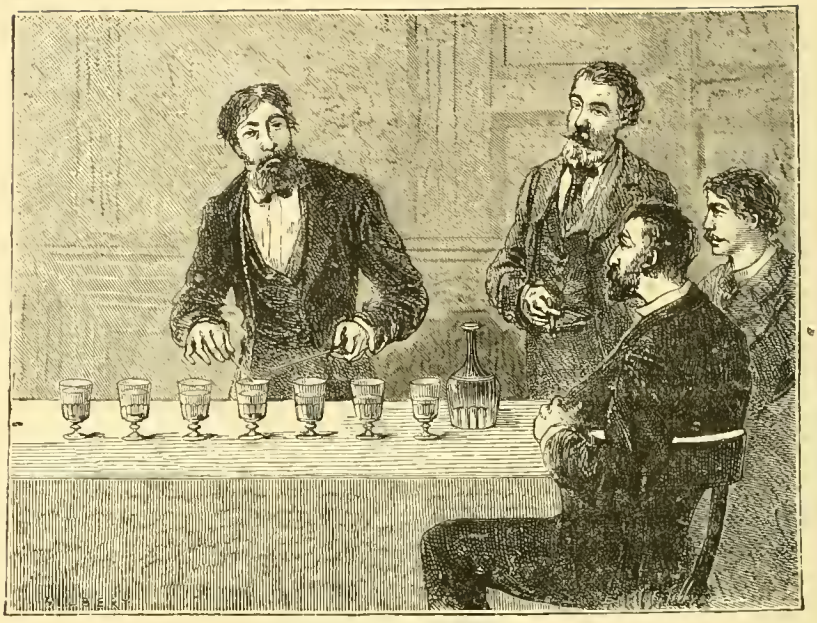
It is a most interesting thing to take a walk through a glass-works and see the various stages of the making of glass. Let us try and describe it. The sand is mixed with lime, soda ash, or some other substances in the right proportions, the nature of the mixture differing, of course, for each kind of glass that has to be made. And in order that nothing may be lost, old broken glass is added, so that it may be melted over again with the mixture. As you go past the large furnaces where the melting-pots containing the mixture are put, it is hardly possible to look in at the furnace door, so fierce is the heat and so bright the blaze. But perhaps the workman will be so good as to let you look into the fire through a piece of blue glass: then you will see inside amid all the fierce blaze the rows of melting-pots containing the sand mixture. When the mixture is properly melted, and of a proper heat, the liquid glass may be blown into various articles, or each pot may be taken out in turn and poured over a large flat table, and there, while hot and liquid, the glass is rolled out into a large flat plate. It is not allowed to cool very quickly, because in such a case it would be too brittle, and would break up as soon as ever they attempted to polish it. No; it is cooled very slowly in a hot chamber, so slowly that it is days before it is of the ordinary heat.

GLASS FURNACE.



GLASS POLISHING.

When it has cooled, it is polished: that is, both sides are made quite smooth, like ordinary window panes. This is done by rubbing the faces of the glass under trickling water, with powders of various degrees of fineness, beginning with the coarsest and ending with the finest. The rubbing is done by machinery; and the noise these machines make is very great.

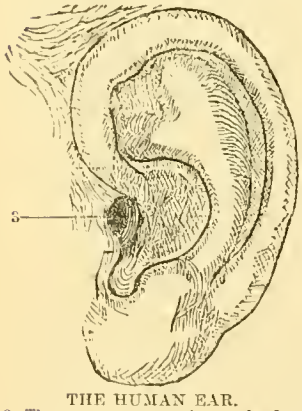


MUSICAL GLASSES.

[Place some goblets, more or less filled with water, on the table, and then strike them with a short rod. They will give a variety of sounds which can be modified by pouring in more or less water, and if the performer have a musical ear, he may be able to play a simple piece of music, for the glasses emit a pure and silvery sound. But how can we tell the difference in the sounds? By means of those wonderful organs—the Ears.]

SOMETHING ABOUT MY OWN LITTLE BODY.

LESSON VI.—HEARING AND SPEAKING.



THE HUMAN EAR.
3. The aperture appearing to lead to the head, but soon stopped by the "drum face."

THE next most important sense to that of sight is hearing. The ear is the interpreter of sounds; it tells the difference between the notes of the cuckoo and skylark, both equally charming; it enables one to feel pleasure in the blended notes of a band of music, and in the sounds of the human voice.

But it does something more, it distinguishes between all those fine variations of sound which we call *speech*, so that one is able to learn the wishes and feelings of the friend who is talking. In short, the ear reads all the kinds of sounds which enter it, just

as the eye reads all the pictures formed by the light which enters it on its violet screen.

Only one part of the ear can be seen ; it is the fleshy shell at the outer edge of the face. There is a round hole in it which appears to lead into the head, but before the passage has gone any great length it is stopped by a tight piece of skin stretching over it, like one of the faces of a drum, and we may conveniently call this stretched skin the *drum face*. It is this drum face which is sometimes spoiled when young people use pins for scratching the inside of their ears ; and when the drum face has been injured, the persons are generally deaf after it. Behind the drum face there is a string of three nice little bones, all fastened to each other, and one of them is fixed to the back of the drum face. When the drum face is shaken by sound, all these little bones are shaken too. The shaken little bones make a stir among some tubes of fluid a little further in the head, and news of all this disturbance is carried to the brain by nerves, and is understood to be sound.

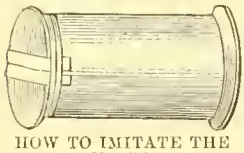
But the young reader may ask, can sound shake anything? Yes, it can. Perhaps you have sometimes heard the deep rolling notes of a church organ make the rafters tremble noisily. In the same way a sound entering the passage of the ear shakes the drum face, and gives that disturbance to the hearing nerves which we have learnt to call sound.

SPEAKING.

Sounds are made in a great number of ways ; by twanging strings, as in the harp ; by bowing strings, as in the fiddle ; by blowing into tubes, as in organ pipes, and many other instruments ; and by hammering with clappers, as in a peal of bells ; but no way in which musical sound is produced, is so remarkable and interesting as in the human voice.

You have many a time seen a lump in the necks of people, which is known as Adam's apple. This lump is in the throat, and it is the place where sound is made when a person is singing or speaking. You will be able to feel this lump move if you place your hand against the front of your neck, and at the same time sing one or two notes. Now what is there in this lump which makes the sound? At this particular part of

the throat there are two thick bands of muscle stretching across, with their two edges nearly touching. When one sings these bands are tightened, and air from the lungs is blown through the slit made by the opposite edges of the bands of muscle; the sound is thus made. You have no doubt often seen your playmates make it in the same way by taking a bobbin and fastening two bands of indiarubber over one end, and then blowing in at the other. Here the two bands of indiarubber stand for the two bands of muscle in the throat, and just as the indiarubber is made to give out sound by being blown against, so are the muscles stretching across the throat. These muscles for making voice sounds are only about three-quarters of an inch long, and a first-rate singer does not stretch them more than the fifth part of an inch in changing from the deepest bass note he can get, to the highest he can manage.



HOW TO IMITATE THE VOICE.

In speaking, sounds are made by the muscles in the throat just in the same way as in singing, but these sounds are altered a little by the throat, tongue, and lips. You can sing the sound *ah* without moving tongue or lips. Now close the lips at the beginning of the sound, and you will find you have made the word so very familiar to all children—*Ma*. The effect of the tongue in singing this same sound *ah*, is seen by putting the tongue to the roof of the mouth, and then suddenly taking it away. One thus obtains the word *lah*, the name of a note. In some such fashion are the various simple sounds one can make with the voice altered to form words, and by means of these words we speak to each other, and tell our wants, our hopes, and our fears.

CONCLUSION.

In conclusion, we have seen in these few short lessons how wonderfully the body is made; how the brain and nerves rule it; what a splendid little crystal palace the eye is; how simply the voice is produced, and many more interesting things. In fact, the body is full of wonders, and examples of the admirable things which the Author of all has designed, perfected, and placed in the Universe.

LUCY *HAS* GONE TO SLEEP, NOT LUCY *HAVE* GONE TO SLEEP.

GRAMMAR.

VII.—THE VERB "TO HAVE."

These boats *have* passed under the bridge, not *has* passed under the bridge.

WE have already learned that the use of Grammar is to teach us to speak and write good sentences. It is almost impossible to do either correctly unless we know the two Verbs *to have* and *to be*.

The first mood of the Verb *to have* is as follows :—

INDICATIVE MOOD.

PRESENT TENSE.

Singular Number—I have.	Thou hast.	He has.
Plural Number—We have.	You have.	They have.

It is called the Indicative Mood because it *shows* or *indicates* something, and it is called the Present Tense because it shows or indicates something at the *present* time. *Mood* means manner, *Tense* means time. If you say, I have a ball, you mean that you have a ball *now* or at the *present* time. *I have* is therefore in the Present Tense. Again, you must be very careful to note the singular and plural part of the Verb. To say *We has* is to speak incorrectly, because *has* is the singular part of the

Verb, while the Pronoun *We* is plural. It is better to learn one Tense at a time, and then you are likely to remember how the pronouns fit in with the different parts of the Verb.

The second Tense is called the Imperfect or Past Tense.

IMPERFECT OR PAST TENSE.

Singular Number—I had. Thou hadst. He had.
Plural Number—We had. You had. They had.

Had is the sign of the past. I *had* a ball seems to express that some time ago you had a ball, or you had a ball at some *past* time. The third tense is the Future.

FUTURE TENSE.

Sing. Num.—I shall or will have. Thou shalt or wilt have. He shall or will have.
Plu. Num.—We shall or will have. You shall or will have. They shall have.

Shall or *Will* is the sign of the Future. I *shall* have a ball, means at some future time you will possess a ball, does it not?

The second Mood is the Conditional. It is as follows—

CONDITIONAL MOOD.—PRESENT TENSE.

Singular Number—I would have. Thou would'st have. He would have.
Plural Number—We would have. You would have. They would have.

I *would* have a ball if someone would give it to me, or if I bought it. *Would*, you see, implies some condition.

The third Mood is the Imperative.

IMPERATIVE MOOD.

Singular Number—Have thou. Let him have.
Plural Number—Let us have. Let them have.

The Imperative commands or orders something. *Let* him have your ball. This is an imperative command.

The fourth Mood is the Subjunctive. It has two tenses,—

SUBJUNCTIVE MOOD.—PRESENT TENSE.

Sing. Num.—That I may have. That thou may'st have. That he may have.
Plu. Num.—That we may have. That you may have. That they may have.

PAST OR IMPERFECT TENSE.

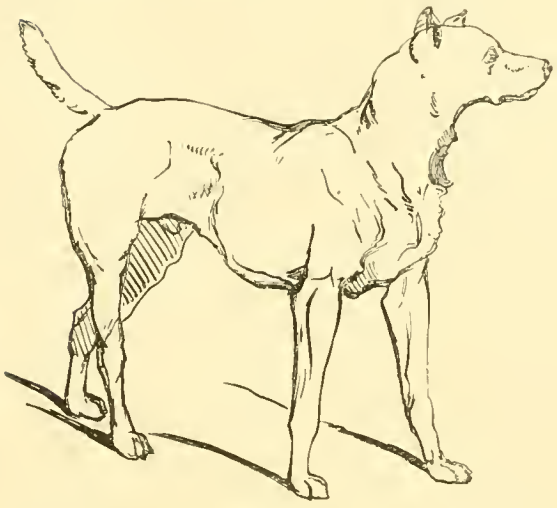
Sing. Num.—That I might have. That thou might'st have. That he might have.
Plu. Num.—That we might have. That you might have. That they might have.

The Infinitive Mood simply runs thus—

INFINITIVE MOOD.—To have.

Present Participle—Having. *Past Participle*—Had.

This Verb must be perfectly learned by every pupil who would speak good English.



A PICTURE OF "FINCHER!" TO COPY FROM.

DRAWING LESSONS FOR THE YOUNG.

HOW TO DRAW A DOG AND A HORSE.

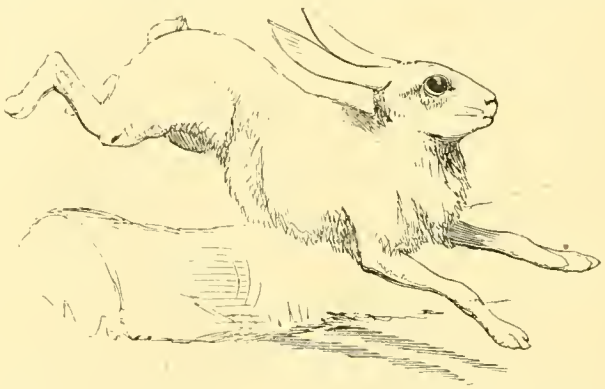
MATERIALS FOR OUT-DOOR SKETCHING.

SUPPOSING you want to draw an animal of some kind, how would you set about it? It is very pleasant to draw animals. A great many people like to try to do it. You have a nice little dog who is up to all sorts of tricks, I am sure you would like to draw him, but when you begin he will not lie still, and then it is difficult.

Now you can always draw doggie when he is asleep, and like a good many other people he is much quieter when he is asleep than when he is awake. Well, begin drawing him whilst he is asleep, and then you will learn the proportion of the various parts, that is, how big the head is compared to the body, how long the legs are compared to their own width, or the length of the whole animal. Then another good way to begin is to draw a bit at a time—the head, the leg, or even the paw—and you can take your time over this. Perhaps you cannot get doggie to go to sleep, and dogs will not always do what you want them, and even when they do so, they do not

sleep in positions very convenient for drawing. You may get a statue or plaster of Paris cast of a dog, or a horse, or other animal, and then you can draw this; a piece of it at a time until you know every line exactly. There are many statues and monuments with horses, some of them very good. In the British Museum you will find some of the very best horses in every position, amongst the Grecian statues. Perhaps you may be able to draw from some cast of a horse, such as those I have mentioned. Draw the various parts—the fore legs, hind legs, heads, heads and necks, then bodies—and when you have learnt these almost by heart, then you may put them together and draw whole animals.

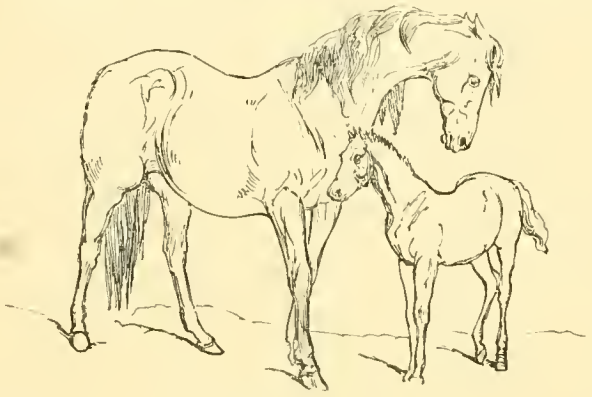
Now you will find that you will be able to draw horses that are alive and moving, for in the short time whilst they are



COPY FOR PRACTICE: HARE LEAPING OVER A LOG.

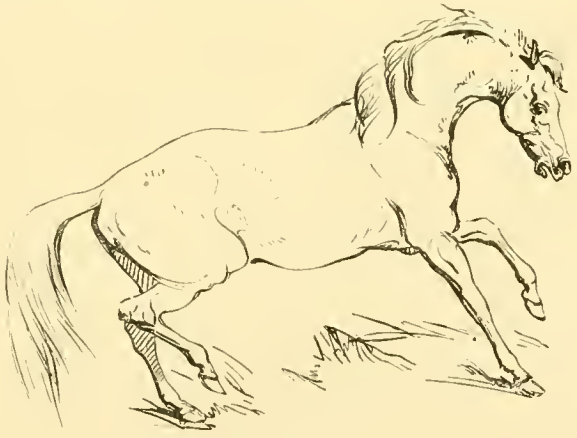
still, you will be able to observe the peculiarities of each individual, and how each differs from the other animals you have drawn, and you can allow for these differences. You will only have to remember the differences, and that is easy to do, and not the whole of the figure, which would be much more difficult. Besides, you may draw your horse or other animal in some position that it often gets into, though it may not remain long in that position. You may draw a horse walking for instance, though it never remains for a single second in the same position, because with every step it goes through all the old positions that it had been in before. You know what I said before about remembering forms. That especially applies to drawing animals. You may watch animals in motion, and *draw them in your head*, and then when you go

home you may put them upon paper, and with the help of what you know from statues and other pictures you may draw very accurately if you like. As you walk along the road you may watch horses walking, trotting, and galloping, until you



A HORSE AND COLT.

know, as it seems to you, all the motions that they go through; and sometimes when you are riding you may watch your own, or it may be other people's horses, as they move along side by side with you, and you will be able to tell in what order each



THE HORSE.

limb is moved, and what muscles show themselves as each motion is made in all the various paces that the animals use.

You will get a much clearer idea of the proportion and the movement of animals if you know what the bones are like, how the joints move, and which muscles pull the different

limbs. This you may learn from the skeletons and from anatomical pictures. If you draw a skeleton sometimes all this gets impressed upon your mind, and when you come to draw the animal itself you can see where the bones come and where the flesh and muscles cover them over, just as you can see where a man's body is under the clothes that cover it. There are a good many things to be remembered in drawing animals, such as making both sides to correspond, seeing that the legs are the same length, and not making a straight leg very much longer or shorter than the other one which is bent. Careless people do this sometimes. Then if you learn what

COPY FOR PRACTICE: MAN DIGGING.

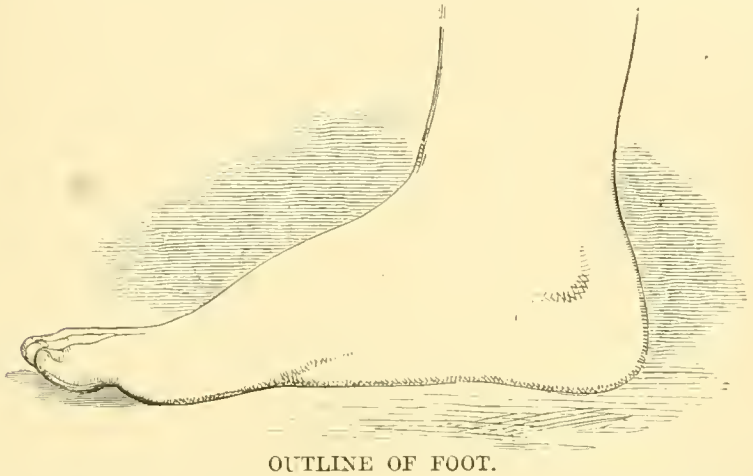
people, who have to do with horses much, call the points of a horse, that is the particular beauties of a horse, you will not make mistakes which would otherwise be very annoying to those who know all about such things, though they know nothing about drawing. The set of the head, of the neck, and of the tail, the slope of the shoulders, the fineness of the legs, the line of the back, and a great many other things of this kind, which a groom will talk about, are the points which we mean should be so carefully noticed.

HOW TO DRAW A MAN.

What everybody likes to draw is a man. The first thing a little boy with a slate pencil begins to draw on his slate is a man, and the last thing that he will be able to draw is a man.

Almost all the great pictures of the world are pictures of men, either portraits of great men and women, or pictures which show you men or women doing something that is interesting; so we all wish to know HOW TO DRAW A MAN.

When you cannot do the whole of a thing perhaps you can do a piece, and so if you cannot draw a whole man at first it



OUTLINE OF FOOT.

is well to begin with a piece of a man; you may draw a foot or a hand, perhaps a leg or an arm, but the most interesting part of a man is his face, and that we may take to pieces and draw a bit of it, an eye, or a nose, or a mouth. If you can get a good large copy of some of these parts you will find it will make it much easier to draw from the thing itself afterwards if you first have drawn it from a copy. You will be able to see lines that you never dreamt of before if you see them first in the copy.

OUTLINE OF HAND, LEG, AND FOOT.

Then supposing we begin with a foot. We do not see people's feet so often as we do their hands and their faces, because they keep them covered up in shoes and stockings, so when we see naked feet they will want all the more looking at before we can draw them. A little time spent in looking at any object before we begin to draw it is not thrown away, because we are learning what it really *looks* like and what it *is* like.

By looking at a thing, too, we begin to see those lines which we have talked about before, which do not exist except in our own minds. We shall see in this way that there are nearly straight lines running down the sides of the foot, that the heel stands off from these straight lines, and that the toes, though they are five distinct projections, form altogether a nicely curved outline, bearing due relation to one another. This is what we see at first, but we must look a little deeper, and try and see what there is inside the foot. Little boys are said sometimes to try and find out what is inside their sisters' dolls. Some dolls' feet are filled with bran, but we can see at once that our own feet are not filled with bran, and we cannot cut them open as we might the dolls' and so find out what it is that is there. Sometimes we can see a skeleton, and this will show us what we have inside our own feet. Some people do not like looking at skeletons, but this is foolish; we may learn a great deal from looking well into all the curious bones there are in a skeleton. See what a number of bones there are in a foot, just as many as there are in a hand and a great many more than there are in a pig's pettitoes.

Now when we look at a foot we do not at once see all the bones there are inside it; in fact, at first we see very few, but the more we look the more we shall see. We do not see the joints in all the toes equally well, but excepting the great toe they all really have the same joints, the great toe, like the thumb, having one joint less. You can see this plainly in your own foot when you have your stockings off. Then again, you may see something more if you look a little more attentively. The toes all join together and form the instep of the foot, but the instep is not made with only one big bone, it has five distinct bones running up from each of the toes, and then above that again there are several bones, not so clearly to be seen from the outside, until you come to one bone where the foot fits on to the ankle, from which you have the two bones that form the leg.

Perhaps you will think that it is like talking of seeing through a brick wall to say that we can see these bones when all the flesh and the skin is on them, but it is not so. Where the flesh is not so thick over the bones you can, from the stretched look of the skin, tell that a bone is beneath; you may see its

projections, and by the softness of other places you may discover that the bones there are not so large. In time you will get to know all these bones if you are constantly looking out for them, and besides this you will see the muscles that lie upon them and that swell out or fall back as they move the bones in various directions. All these things you will have to learn by degrees before you can draw a foot quite accurately. In the meantime draw your own foot, and other people's too if you get the chance, and remember always to draw the prettiest feet you can. Draw a baby's foot as it lies kicking about on the floor, but do not draw a foot which has been cramped up in tight or high-heeled boots—there is no beauty in them. The feet of people who wear boots and shoes are not so beautiful or so naturally shaped as those of people who go barefoot or only have their feet wrapped up as the Italian peasants have theirs. Draw pretty things in order that you may learn what is really beautiful, and may always be inclined to draw pleasing things rather than ugly ones.

What I have said about the foot applies equally to the hand, and as you come to draw them both you will soon find how much there is alike in the hands and in the feet, the bones almost always corresponding in number though not quite in shape. It is much easier to get hands to draw from than feet, and so you may often get somebody to hold out a hand, quite still, for you to draw from when you could not get a foot, or if you did it probably would be a misshapen one. People show their hands, and do not crush them out of shape but take care of them, for they have to use them in all sorts of delicate work, and so they must not be deformed; besides, kid gloves are not so bad as leather boots. Notice how much care great artists take in drawing their hands. What beautiful hands Vandyke always painted! I think that not quite all the people whose portraits he painted had such delicate hands, but then he was a courtier and perhaps flattered.

SOMETHING ABOUT DRAWING A FACE.

Now I am sure you would like to draw a face. This must be done, like the whole body, by drawing bit by bit. Draw eyes, right eyes and left eyes, and then both together, and when you draw them together be quite sure that they match

and that both look in the same direction, for it would not do to have your friend with one eye bigger than the other, or squinting horribly. If you look sharply enough you will find a line running right across the face through the middle of the eyes, cutting the corners. If you mark off on this line an equal quantity for each eye and get the pupil (the little black spot in the middle of the eye) in the same part of each line, your eyes ought to go right then. In the same way you must practise mouths, looking for a line across between the lips, above and below which the lips will bend up and down at equal distances on each side of the middle. The nose and upper lip want practice of the same kind, and when each part has been to a certain extent learnt by heart, then the whole may be put together in proper proportions. The right size of each part is a very important matter. The length of the nose is generally much the same as that of each part of the face above and below it; thus in drawing the face we already have some very important lines and proportions to help us. There must be a line down the middle of the nose and through the middle of the mouth and chin. This line is gently curved if the face is turned a little sideways to us. Across this will run the line through the middle of the eyes, a little more than a third of the way down; then the nose will end about two-thirds down, a line will run across the mouth about one-third of the remainder; the eyes and the various curves of the mouth will be equally distant from the centre.

In the same way the various portions of the body all have their regular proportions, from which various individuals differ slightly, but this is very slightly.

In conclusion, we may wish our young friends to do their best to practise drawing whenever they can and as long as they find pleasure in it. It is not much use drawing when you get tired of it; get up and do something else. But if you do not get tired, work at it steadily, but not too much, every day, and ALWAYS DO YOUR BEST. You will soon learn enough to give yourselves a great deal of pleasure, and in time you are sure to give pleasure to other people also. Only remember that you have first to learn to see what things really look like, and then there will be no great difficulty in drawing them.

CHRIST'S ENTRY INTO JERUSALEM.

SCRIPTURE STORIES.

CHRIST'S ENTRY INTO JERUSALEM; HOW HE WAS BETRAYED BY JUDAS.

JESUS AT THE LAST SUPPER.

YOU remember no doubt that I told you the Chief Priests, Pharisees, and Scribes hated Jesus and wished to kill Him, but that many of the common people, and those whom He had healed from sickness or blindness, loved and believed in Him.

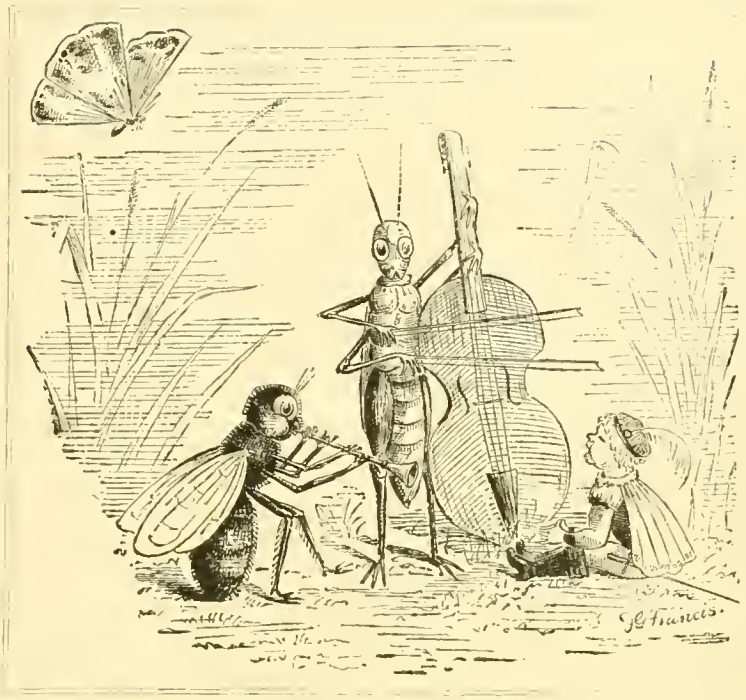
One day He told two of His disciples to go into a village near Jerusalem where they should find an ass with its colt tied; these they were to loose

and bring to Him, so that He might ride upon the back of the ass through Jerusalem. And as He rode, the people cut down the branches of trees and strewed them in the way, and spread out their garments before Him, shouting "Hosanna to the Son of God." All this made the Pharisees very angry.

HOW JESUS WAS BETRAYED BY JUDAS ISCARIOT.

Now amongst the disciples of Jesus Christ there was one named Judas Iscariot; this man was very fond of money, and knowing how the principal people hated Jesus, he went to them and asked them what sum of money they would give to him if he would betray his Master into their hands, and they promised him thirty pieces of silver. So Judas waited a favourable opportunity to betray Jesus. Jesus knew that His death was very near, and He commanded that a supper should be laid in the upper room of a house where He could partake of it with all His disciples. And as they sat there, He told them that one amongst them should betray Him, and deliver Him up to death. Then they were all sorrowful and asked Him each one "Master, is it I?" But wicked Judas knew who it was, and yet did not repent.

One of the disciples, whose name was Simon Peter, said that whoever should turn against Jesus, he would ever be faithful and follow Him, even unto death. But Jesus turning to him, said, "Verily, I say unto thee, that this night, before the cock crow, thou shalt deny Me thrice." But Peter said he would rather die than deny his Lord.



LEARNING TO KEEP TIME.

MUSIC AND SINGING.

SOMETHING ABOUT TIME.

BARS OF MUSIC.

IN Playing and Singing Music my little readers will find that it is impossible to do either—anything approaching well—without a great deal of attention to Time. It is the different *Time* that makes the tune, quite as much as the birds' voices themselves. You will know more about this by-and-bye.

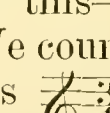
In teaching the value of notes I paved the way for teaching you Time also.

You have no doubt noticed in printed music that the lines are divided into bars, like the picture at the initial letter.

Each little intersection is a bar, and contains the same value in notes, though not always the same number.

This I explained to you last time, in showing you how some notes are more valuable than others. It is just on this principle. Supposing you had four little boxes, into which you were to equally divide a shilling. You might put three pennies into the first, six half-pennies into the second, two pennies and two half-pennies into the third, and a little silver three-pennypiece into the fourth box. You would have just the value of threepence in each box—would you not? though you would not have the same number of coins in each box. So it is with the notes in a bar; each bar has the same value in notes, though in some cases there might be three or four more notes in one bar than in another. These different notes then make the tune itself.

THE DIFFERENT KINDS OF TIME.

Supposing the time of a piece is written in $\frac{3}{4}$ time. This means the value of three crotchets in a bar, because four stands for crotchets, as there are just four crotchets in a semibreve. The $\frac{3}{4}$ stands at the beginning of the piece of music, like this—  just to show us how to count it. We count three, of course, to each bar like this

Try and remember that the time of a piece is always placed at the beginning of the piece of Music, that it is expressed in figures, that the *under* figure shows the value of the notes, and the *top* figure shows how many are to be counted

in each bar. Thus, in $\frac{2}{4}$ time there are two crotchets in a bar, so we count two, or rather the value of two; it might be four quavers—or one crotchet and two quavers; it would be exactly the same value, would it not? In $\frac{4}{8}$ time we should count four in a bar—each bar containing the value of four quavers. In $\frac{4}{2}$ time there would be four minims in a bar. This would be very slow time indeed, because a minim, you know, is a long note. In $\frac{6}{8}$ time, one would count six in a bar, each bar containing the value of six quavers. I wonder whether you understand what *Time* is now? Sometimes you see a $\overline{\overline{\mathbf{C}}}$ put at the beginning of a piece of music. This $\overline{\overline{\mathbf{C}}}$ stands for "Common Time," and means that you are to count four in a bar. It is called Common Time because so many pieces of music are written in it, such as polkas, marches, and hymn tunes. Waltzes are written in $\frac{3}{4}$ Time. Common Time is very *even*, easy time to play in. It means, of course, four crotchets in a bar, and instead of writing it like this, $\frac{4}{4}$, we call it Common Time, and express it by $\overline{\mathbf{C}}$.

QUESTIONS.

Write the signs for Sharp, Flat, and Natural.

How many Sharps has the scale of C? How many has B?

If we wish to express that a note is sharp or flat, where do we put the sign—before or after the note?

When all the F's and C's in a piece of music are to be sharp, where should we put the sharps?

Is a flat to the left or right of a bird upon the piano-cage?

What is the use of a dot after a note?

What is the use of a rest?

Write out all the different kinds of notes, and state their value.

Write out all the rests, and state their value.

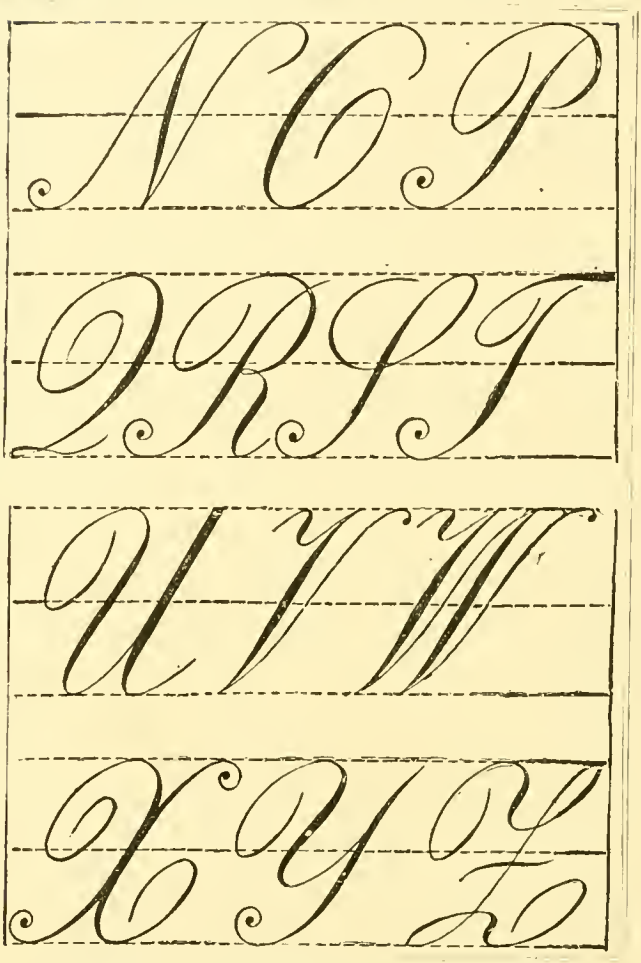
Tell me something about Time.

What is $\frac{3}{4}$ Time?

What is $\frac{2}{4}$ Time?

What is Common Time?

How is Common Time expressed?



THE SECOND THIRTEEN CAPITAL LETTERS.

WRITING MADE EASY.

VIII.—CAPITAL LETTERS (*continued*)—CONCLUSION.

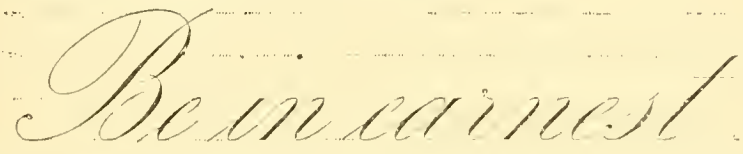
AMY WRITING HER LETTER TO PAPA.

AMY continued to practise the capital letters until she had gone all through the alphabet.

In my last chapter I gave you a picture of the first thirteen letters, and now you will see the second thirteen on this page. When she had finished prac-

tising them, one day, her mamma said she might now try a few "round hand" copies and then try and write a letter to her papa in India.

So her mamma ruled a sheet of paper, and set her a copy something like this—



After practising a few days like this, one morning her mamma ruled lines about the same "round hand" size on a nice sheet of letter paper and then allowed her to begin her letter. She often had to ask how the words were spelled, but this is what she wrote,—

"My dear papa, mamma has been teaching me to write, so that I might be able to write to you. I cannot write very well yet, but I mean to keep on trying, and next time perhaps I shall be able to write better. I should like to be over in India with you, but hope you will soon come home, because I want to see you so much. I have been learning a little every day, and mean to go on trying until I can write quite nicely and easily. Good-bye, my very dear papa. I will write to you now every time that mamma writes. From your loving little daughter, AMY."

And now I hope you have practised the little exercises that Amy did, and that like her you can write a little. You must continue to practise a little every day, and when you are older and can write "round hand" pretty well then you may begin "small hand" and practise it in the same way.

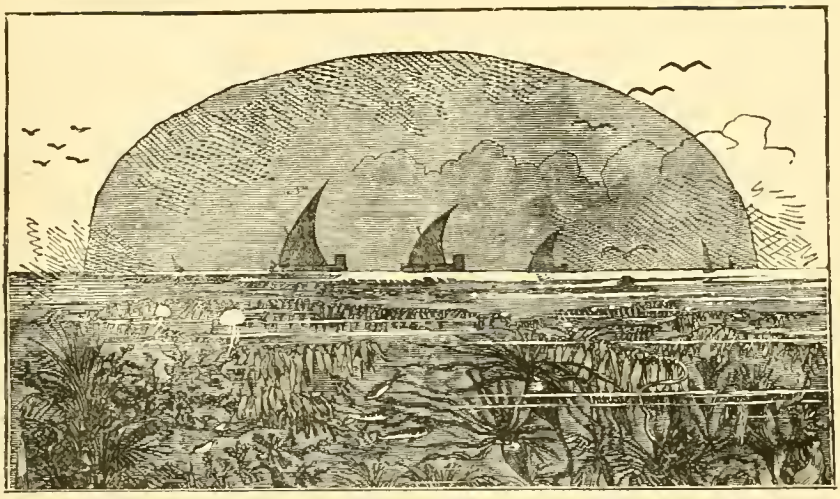
KINDERGARTEN GAMES AND SONGS.

XIII.—THE SNAIL.

A LONG chain is formed, hand in hand. The child at the end is led by the teacher down to about the middle of the line, its immediate neighbours following hand in hand: the line, in fact, is "countermarched." The child at the other end turns and leads the line down, passing round the double line already formed, so as gradually to wind up the whole line round the teacher. This is all done in time with the music. The "snail" is then unwound again by reversing these motions, or by two of the children raising their arms, under which the teacher passes, dragging the chain through after her.

1. Hand in hand we now pro - ceed, Slow - ly first, and then with
speed; Al - ways near - er, al - ways near - er, al - ways clos - er,
al - ways clos - er, Al - ways tight - er, al - ways tight - er, Al - ways
near - er, last - ly close, And the cir - cle small - er grows.

2 Hand in hand we now proceed.
Slowly first, and then with speed;
Always looser, always farther,
Always wider,
Always looser, lastly wide,
Till the circle opens quite.



THE VESSELS SAIL ON THE WATER OF THE SEA.
LES VAISSEAUX NAVIGUENT SUR L'EAU DE LA MER.
AND SEA-WEEDS AND FISH ARE IN THE SEA.
ET DES ALGUES ET DES POISSONS SONT DANS LA MER.

EASY LESSONS IN FRENCH.

XI.—ABOUT WATER.—*APROPOS DE L'EAU.*

AT THE WATER-SIDE.
AU BORD DE L'EAU.

YOU know what hot water is, do you not? You have it for your bath. Well, in French, it is *De l'eau chaude.* Then there is cold water, *De l'eau froide.* And there is hard water, *De l'eau dure.* And there is soft water, *De l'eau douce.*

When you are ill, you like toast-and-water. That is, *De l'eau panée.*

When you are near a river, you like to walk by the water-side. That is, *Au bord de l'eau.*

When you go near a pond, and see it covered with green weed, we call that stagnant water. In French, it is *eau dormante,* or water that is asleep.

The sea-water is in French, *l'eau de mer.* If it is high tide, the French say, *la marée est haute;* if it is low tide, the French say, *la marée est basse.*

At the sea-side, too, you will see a pier, or a jetty, or a wharf, or a dock, that will have marks to show how high the tide has come. That is called a water-mark. In French it is *un niveau des eaux.* So you will be sure that if it is a high tide water-mark it is *un niveau des eaux hautes,* and if it is a low tide water-mark, it is *un niveau des eaux basses.*

Then there is a sheet of water, or a pretty lake, that you can see in the country as you walk along, shining in the sun. In French, that is *une nappe d'eau;* for you know that a table-cloth is *une nappe,* and such a piece of water does look sometimes as white and as smooth and as glossy as a table-cloth. Another French word for the same is *une piece d'eau,* a piece of water.

A drop of water is *une goutte d'eau.* And of course a drop of wine is *une goutte de vin.* And a drop of milk, *une goutte de lait.* And a drop of gravy, *une goutte de jus.*

Une goutte de jus sur la nappe. A drop of gravy on the tablecloth.
Deux gouttes d'eau sur les rideaux. Two drops of water on the curtains.

Now can you give me the French for "Three drops of milk, and one drop of tea." It will rhyme if you do it properly, thus:

Trois gouttes de lait,
Et une goutte de thé.

But I have a great deal more to tell you about water. Listen. And think about it all. With your own little heads, you know. Not think with my head. That is lazy.

There is, *Il est tout en eau*, He is all in water, meaning He is in a perspiration.

There is spring-water, *eau de source*. There is running-water, *eau courante*.

And I can tell you of a water-carrier, *un porteur d'eau;* of a water-course, *un cours d'eau;* of a water-fall, *une cascade*, or *une chute d'eau;* of a water-mill, *un moulin à eau;* of water-gruel, *du gruau;* of water-cress, *du cresson;* of a water-cart, *une charrette d'arrosement;* and of a watering-pot, *un arrosier*. A ferry, across a piece of water, too, is called *un bac;* and a ferryman is called *un passeur*, because he is always passing people backwards and forwards.

Now put this into English for me :—

Hier, je vis un canal. Je vis une cuisine. L'eau panée est à moi. Dès lors le dey a été aux eaux. Une goutte de gruau et deux gouttes d'eau de source.

A FEW SIMPLE PHRASES.

Now I want you to learn these few simple phrases by heart. You will not find them difficult if you take a few at a time, and if you learn them thoroughly, you will no doubt find them very useful by-and-bye.

Quelle heure est-il?	*Est-il cinq heures?*
What time is it?	Is it five o'clock?
Je ne sais pas.	*Non, il est cinq heures moins dix minutes.*
I do not know.	No, it is ten minutes to five.

You see the French really say, No, it is five hours less ten minutes.

Now here are some more which you must learn by heart.

J'ai une pie.
I have a magpie.
Elle a un dé.
She has a thimble.
Nous avons une bonne reine.
We have a good queen.
Avez-vous des fraises?
Have you some strawberries?
Le cheval a une tête.
The horse has a head.
Elle est une bonne fille.
She is a good girl.

TO HAVE AND TO BE.—*AVOIR ET ETRE.*

J'ai, I have.	*Je suis*, I am.
Tu as, Thou hast.	*Tu es*, Thou art.
Il a, He has.	*Il est*, He is.
Elle a, She has.	*Elle est*, She is.
On a, Somebody has.	*On est*, Somebody is.
Nous avons, We have.	*Nous sommes*, We are.
Vous avez, You have.	*Vous êtes*, You are.
Ils ont, They have.	*Ils sont*, They are.
Elles ont, They (girls) have.	*Elles sont*, They (girls) are.

JAMES *HAS* A CAT. IT *IS* A GOOD CAT.
JACQUES A UN CHAT. C'EST UN BON CHAT.

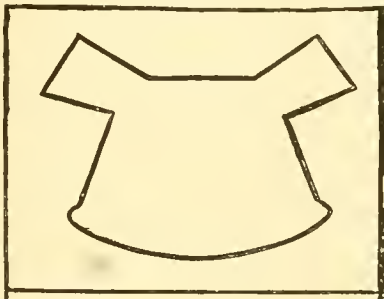
THE END OF THE LESSONS, *LE FIN DES LEÇONS. ET L'ADIEU*, AND GOOD BYE.

Now, my dears, we are coming to the end of our little French lessons. We have talked about a great many things: *Nous avons parlé apropos de beaucoup des choses.* We have had: *Nous avons eu: des rats, des chats, des fraises, des chaises, des maisons, des saisons, des rois, des fois*—can you tell me the meaning of these words?

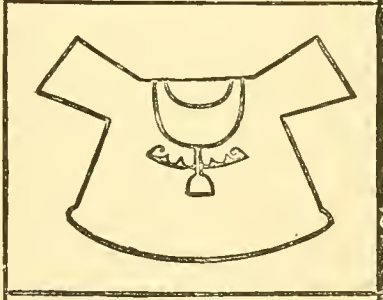
And now I shall say good-bye to you all; and I shall say God bless you. And shall I say that in French? It is *Dieu vous bénisse.*

COMICAL DRAWING LESSONS.

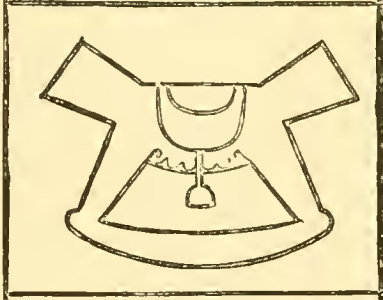
NO. VI.—HOW TO DRAW A ROCKING HORSE.



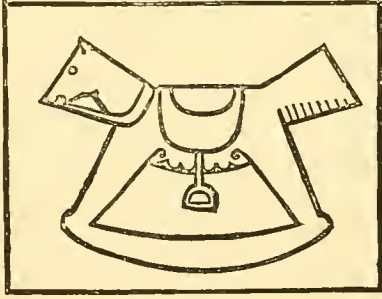
Your sleepy eyes seem to see
baby's shirt
Standing up by itself
on the floor



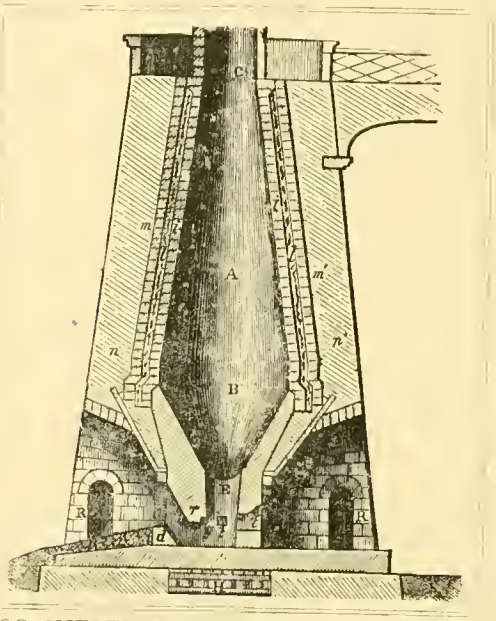
With a bib and some fringe
and locket hung down.
Rub your eyes & you will
see more.



Well there sure enough
it is no shirt at all
But the hobby for Charlie
to ride



With saddle & bridle &
bob-tail complete
And the stirrup hung down
at the side.



BLAST FURNACE, FOR SMELTING IRON ORE AND PURIFYING IT FROM THE EARTH, &c. WITH WHICH IT IS MIXED.

[Blast furnaces consist of a long, narrow funnel, A, inverted upon another shorter funnel, B, the whole being built of solid masonry and lined with firebrick, *i i*. They are usually 50 feet high by 15 feet in diameter at the largest part. At the bottom of the lower cone is a cylindrical hole, E, from which lead the blast pipes, *t t*, and the channel for the passage of the melted slag, which rises on the top of the metal and overflows. At the lowest part is the tap-hole for drawing off the melted metal. At the top is a gallery for the conveyance of fuel and ore. The blast furnace being lighted with coal, the roasted ore, along with limestone, is thrown in; upon this is thrown another layer of coal, and so on; as the fuel burns away flames shoot out of the top, C D, the mass sinks, and is refilled with fuel, lime, and ore from the top.]

CHEMISTRY FOR CHILDREN.

LESSON VIII.—A LITTLE CHAT ABOUT METALS.—CONCLUSION.

NATIVE GOLD.

When gold is dug out of the ground it looks something like this.

WHAT could we do without the metals? Our knives and forks are made of iron and silver; our fire "irons" of iron; our machinery of iron; our coins of gold, silver, and bronze; our cooking utensils of iron and copper; our weapons of war of iron; and our water pipes and gas pipes of lead and iron. In fact, the metals seem absolutely necessary for our modern welfare. Without them we should be in a sore fix.

In the olden times when men could not make things out of metal, when their hammers and their adzes were chipped out of the flints found in the chalk, they were in a savage state, and were short of all the advantages we now have in using metals. Indeed, people nowadays use metals for most of the purposes wood was formerly used for. Our men-of-war are now made of iron and are no longer "hearts of oak"; and in our buildings wooden beams have given way to iron ones. This is an iron age.

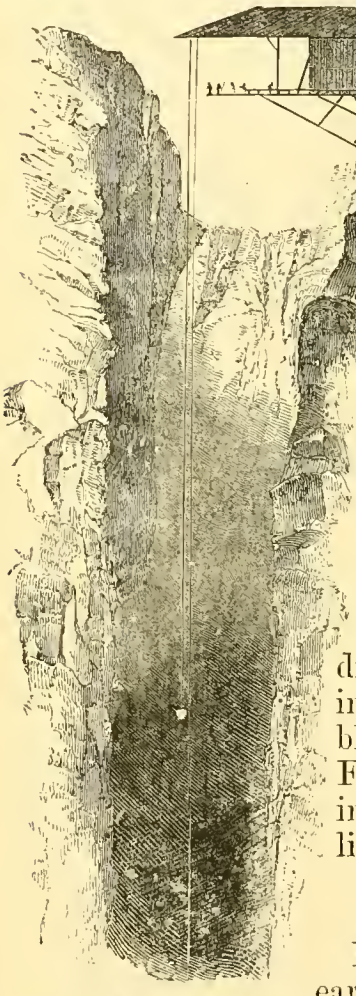
SOMETHING ABOUT THE METAL CALLED IRON.

We may then deal first with iron, as being one of the most common of metals and the one most used. You know it is an element; in fact, all the metals are elements—gold, silver, tin, copper, lead, mercury and several more. Perhaps because iron is one of the most common of metals it is the most useful, but even if it had been scarce it would have been very valuable because of its qualities. It has a weakness, however, and that is its liking for oxygen, because it readily rusts, *i.e.*, combines with the oxygen of the air to form the yellowish brown crust that you will often have seen on old iron. It is very necessary to prevent this rusting; the garden rails would not look nice if they were covered with rust, neither would the iron shutters of our shops look well, and, indeed, if iron were allowed to rust in damp places it would in time rust right away. Well, then, for the sake of appearances, and further for the sake of keeping or preserving the iron, it is necessary to prevent this rust from forming. This is generally managed by giving the iron a good coat of paint; then it cannot rust until the paint has been worn off, when it is needful of course to paint it again. Paint, however, would often be objectionable, as in the case of vessels used for various house purposes; here a very thin coating of a metal which does not readily rust is put on to them; thus, for example, our cans are made of sheet iron on to which a very thin coat of the metal tin has been put.

HOW WE GET IRON.

Iron is dug out of the earth, but not taken out as iron pure and simple; it exists there as a compound known as an *ore*. There are many kinds of iron ore. One of the most common

is *clay ironstone* which is *carbonate of iron*, just as chalk is *carbonate of calcium*. Clay, sand, and other impurities are often mixed with the clay ironstone. These impurities have to be removed and the iron compound has to be broken up before the iron can be obtained as a metal from the ore. This is managed by first roasting the ironstone, by means of which water and carbonic acid are got rid of. An oxide of iron remains behind mixed with the sand and clay, &c. This impure mixture is now put into a furnace along with limestone and coal. At the very high heat of the blast furnace, oxide of iron is broken up by the carbon of the coal, which takes away the oxygen, leaving the iron behind in a molten state; the sand, clay, and lime separate themselves from the iron to form a kind of coarse glass called slag, and this floats on the top of the iron and is easily drawn off. The melted iron is let off into grooves of sand, where it forms the blocks usually known as pig iron. Further purifying makes this pig iron into such iron as we use in everyday life.



DESCENDING A SILVER MINE IN CHILI.

Some mines in which metals are dug out of the earth are very deep holes in the ground, and the men who dig in them are let down in a great basket.

SOMETHING ABOUT GOLD.

Metals are generally found in the earth as ores. Gold, the most precious of our metals, is an exception to the rule. It is always met with in the metallic state. The gold dust of commerce is obtained from the sands of rivers. You will remember the two lines in the first verse of Bishop Heber's hymn which refer to this fact: "Where Afric's sunny fountains roll down their golden sand." When gold is mixed with quartz and

other substances, they have to be crushed before the costly metal can be removed. Gold does not rust; it is not corrupted by the oxygen of the air, and on that account it has been called one of the *noble* metals. It is, as you are aware, used chiefly for making coins and articles of jewellery.

SOMETHING ABOUT COPPER AND SILVER: CONCLUSION.

Some other metals are sometimes found in the metallic state,—copper and silver, for example. Lumps of copper weighing more than a ton have been found near Lake Superior in America, and lumps of silver weighing several hundredweights have been found at Kongsberg, in Norway. But these metals are usually found in the earth as compounds, and the separation of the metals from the other elements combined with them gives employment to great numbers of men.

NATIVE COPPER.

Mercury or quicksilver is also sometimes found in the metallic state. A tale is told of a man, who went out of this country to Mexico, discovering a mercury mine by means of which he became very rich. He was a very poor man when he landed, and could not speak the language. But for all that he was not helpless, as some would have been under like circumstances. So out he went one day with his gun, and when shooting among the mountains he had a fall. He was falling down the side of a mountain; he might have been killed, but to save himself he clutched at some twigs. He tore them up and broke his fall. Sore and bruised as he was he had noticed something. He had seen some mercury where the shrub was uprooted. The secret was a valuable one, and being a sharp man it at length paid him well. The chemistry of the metals which he had learned at home in England proved of great use to him.

And now we end these lessons with the hope that our young readers will want to know something more about such things. A deeper study of chemistry will satisfy such longings, and at the same time reveal many more of the world's wonders to their astonished view.

INHABITANTS OF AUSTRALIA.

GEOGRAPHY.

AUSTRALIA AND THE BRITISH COLONIES.

AUSTRALIAN COCKATOOS.

THE British Islands, meaning Great Britain and Ireland, cover but a small piece of the surface of the World, as you have seen. But the British have a vast number of Colonies and settlements and possessions all over the world, so that altogether, England owns more than one-eighth of the land of the globe, and so that one-fifth of all the people are under English rule.

AUSTRALIA.

This is an immense English colony. It is really a large island, as you can see. At the north is a large bay called the Gulf of Carpentaria; at the extreme south are Bass's Straits, dividing the island called Van Diemen's Land from the continent; round the coast there are the bays and gulfs and ports and harbours, called Shark Bay, Spencer Gulf, Encounter Bay, Portland Bay, Port Philip, Botany Bay, Port Jackson, Port Stephens,

Moreton Bay, and Princess Charlotte Bay. The northernmost point of Australia is Cape York; other Capes of importance are Capes Arnheim, Leeuwin, Hood, Northumberland, and Howe. There are some mountains, the Warragong, known as the Australian Alps; there are some in the Colony of Victoria known as the Australian Pyrenees; there are the Blue Mountains in New South Wales, and there are some fine uplands called the Liverpool Plains, the Brisbane Plains, and the Darling Downs.

The Murray river divides Victoria from New South Wales, and falls into the sea at Encounter Bay. It is 1,200 miles long. Other rivers are the Hastings, the Gilbert, the Richmond, and the Brisbane. On the western coast there is the River Swan. Lake Torrens, in the interior, is a great salt swamp; other lakes in the delta of the Murray River are Victoria, Albert, and Coorong; and there are many swampy places lying about called lacunas.

Sydney is the chief city of New South Wales; Brisbane, of Queensland, Melbourne of Victoria, Adelaide of South Australia, Perth of Western Australia, Hobart Town of Tasmania (which is another name for the Island of Van Diemen's Land).

POLYNESIA AND NEW ZEALAND.

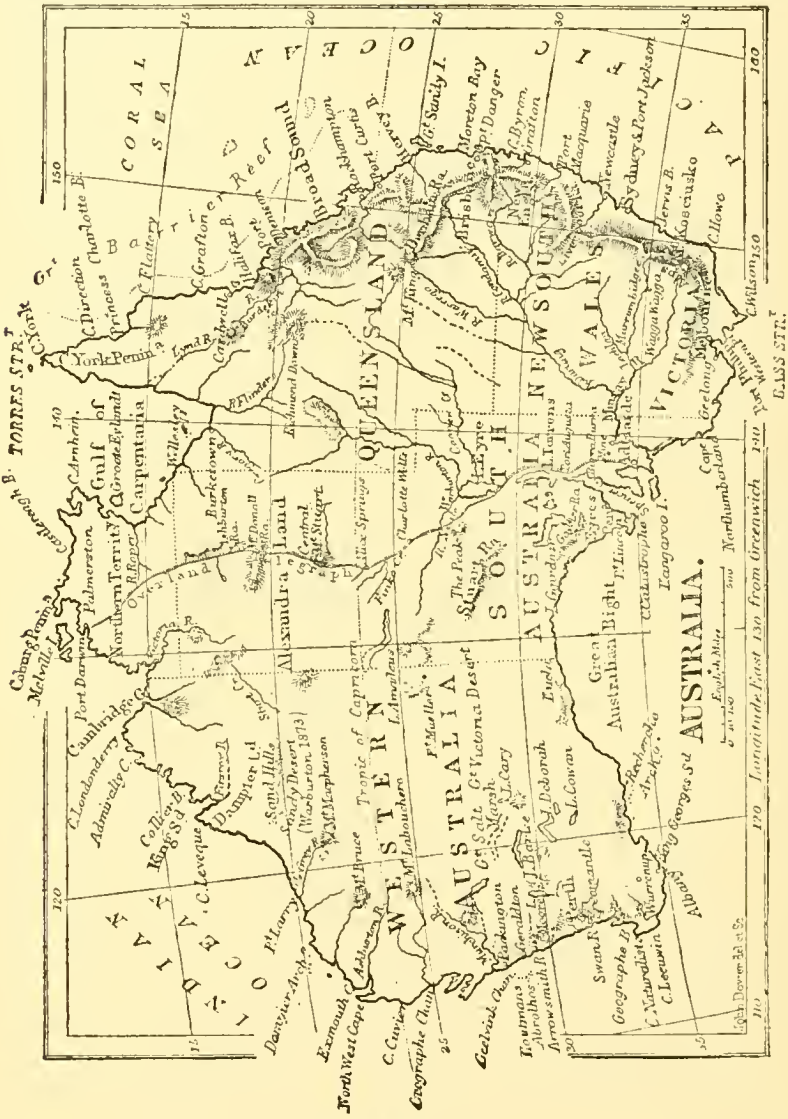
Polynesia means *Many Islands;* they lie in the South Pacific Ocean. Three large ones lying close together and known as New Zealand are English. In Otago, one of them, the capital of which is Dunedin, gold has been found; and all of them are prospering very much and getting to have streets and public places and institutions just like "Old" England. See if you can find Taranaki, with its chief town New Plymouth; and Wellington and Nelson and Hawkes Bay, with Port Napier; and Canterbury with Lyttleton, and Auckland and Marlborough. The soil is fertile and the climate much like that of Australia.

OTHER ENGLISH POSSESSIONS.

From time to time in these Geography Lessons I have mentioned several places in other countries as belonging to England, but I have not mentioned them all, nor nearly all. For instance, in Europe, up in the North Sea, just off

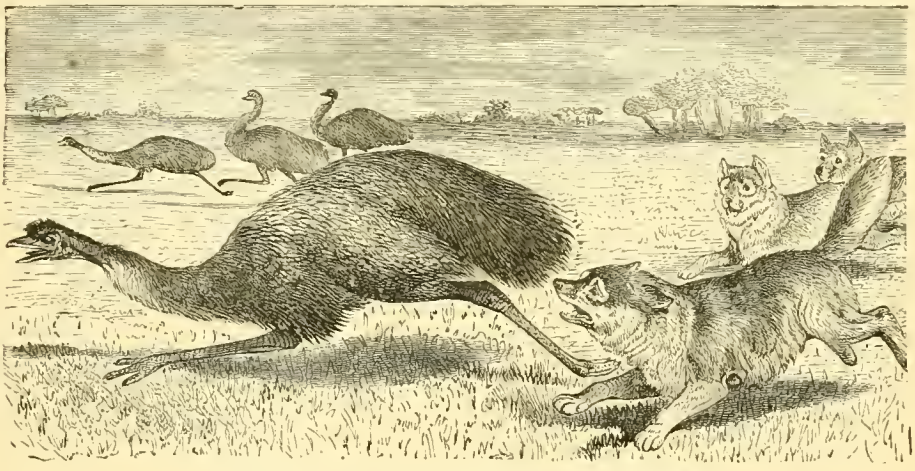
Denmark, there is the Island of Heligoland which belongs to England.

In the Mediterranean there is the great Rock of Gibraltar, and further on the little Island of Malta, which also belongs


AUSTRALIA.
QUEENSLAND
NEW SOUTH WALES
VICTORIA
SOUTH AUSTRALIA
WESTERN AUSTRALIA
AUSTRALIA.
CORAL SEA
INDIAN OCEAN
Great Barrier Reef
Gulf of Carpentaria
Alexandra Land
Great Australian Bight
Sydney
Melbourne
Adelaide
Perth
Port Darwin
Cambridge G.
Admiralty G.
Northern Territory
Queen Victoria Desert
Great Sandy Desert
Great Victoria Desert
Great Salt L.
Lake Eyre
Lake Torrens
Lake Gairdner
Lake Amadeus
Lake Deborah
Lake Barlee
Lake Darlot
Lake Lefroy
Lake Grace
Lake Cowan
Lake Moore
Lake Austin
Lake Way
Lake Disappointment
Lake Macleod
Lake Auld
Lake Nash
Lake Frome
Lake Callabonna
Lake Blanche
Lake Hope
Lake Torrens
Lake Gregory
Lake Macdonald
Lake Mackay
Lake Amadeus
Lake Neale
Lake Hopkins
Lake Carnegie

at the north of the Choo-Kiang river, belongs to England; it is a nice little island, covering 30 square miles and holding nearly 100,000 people, and its capital is Victoria, with a population of about 20,000. In Oceania, which means all those groups of Islands, big and little, which lie above Australia and between the Indian and the North Pacific Oceans, there are some English possessions. These are Labuan and part of Borneo and part of Tapua, or New Guinea.

In America, you know that Canada is English, both Upper Canada and Lower. Then New Brunswick is English; Nova



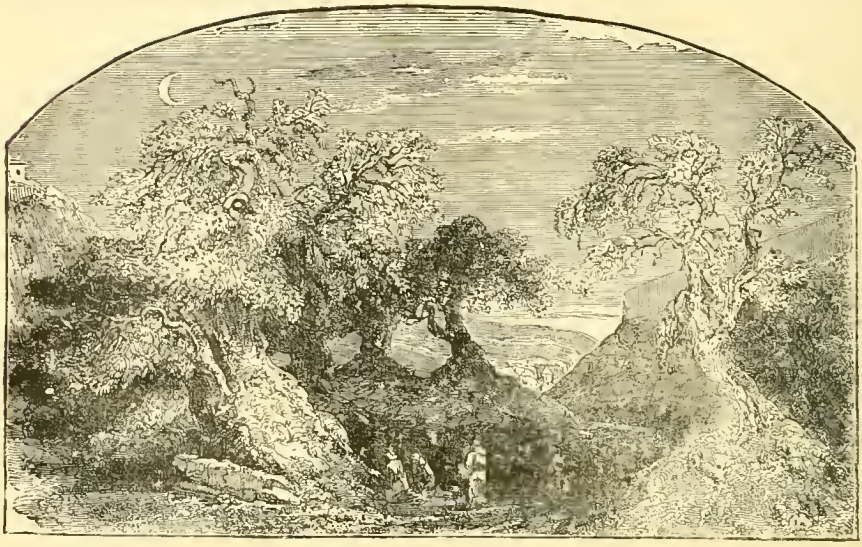
DINGOES OR WILD DOGS PURSUING EMUS.

[Emus are inhabitants of Central Australia. These birds live in pairs, and deposit their eggs in a hole roughly scratched in the sand. Formerly very common, the Emu is now gradually disappearing before advancing civilisation. The Dingoes, or native dogs of Australia, hunt in packs, and are a great pest to the keepers of sheep and cattle. The Dingo resembles the wolf, having a hairy tail, a sharp muzzle, and eyes obliquely set in its head. It is treacherous, cunning, and revengeful, and exceedingly tenacious of life; frequently, also, it will feign death, and then slink away after its enemies have departed.]

Scotia (meaning New Scotland) and the Cape Breton Islands are English, Halifax being the capital. Also Prince Edward Island, Newfoundland Island, the Hudson's Bay Territory, and British Honduras are all English.

Out of the West India Islands, those called the Bahamas are English. So are the Bermudas English. So are Trinidad and Barbados, known also as the Windward Islands; and so are Antigua and Jamaica and Tortola.

And now, "Good-bye." You should read and learn these lessons over and over again, until you know them thoroughly.



GARDEN OF GETHSEMANE.

SCRIPTURE STORIES.

THE DEATH AND RESURRECTION OF JESUS CHRIST.

JUDAS KISSING JESUS IN THE GARDEN OF GETHSEMANE.

AFTER the last supper which Jesus had with His disciples, they went into the garden of Gethsemane, and there Judas suddenly appeared with the servants of the Chief Priests and Elders, who were armed, for they had come to take Jesus. Judas walked forward and kissed Jesus, for they did not know which one was the Lord, and when he had done that, they knew Him, and took Him away to Caiaphas the High Priest.

Peter followed to the High Priest's palace, and as he stood warming himself by the fire in the hall, one of the maids said to him, "Thou also wast with Jesus in the garden;" but Peter was afraid

to own it, for he feared punishment, so he denied it. Then came another maid who said the same to him, but again he denied it with an oath; and by and bye several of the men who stood by, said they saw Peter with Jesus in the garden, and he denied it, saying "I know not the Man;" and as he said it the cock crew. Then Peter suddenly remembered the words of Jesus as He sat at supper, "Before the cock crow, thou shalt deny Me thrice," and he went outside and wept long and bitterly—praying to be forgiven for his great sin.

In the meantime Jesus was taken before the Governor, whose name was Pontius Pilate. This governor asked what Jesus had done, and the people said, He had called Himself the Son of God, and the King of the Jews, and deserved to suffer death. Then Pilate ordered Jesus to be scourged, hoping to satisfy the people, for he could find no fault in Him. But the people would not let Him go, but kept shouting, "Crucify Him, crucify Him!"

So at last Pilate was obliged to give Jesus up to the people to be put to death.

After they had put on Him a purple robe, and platted a crown of thorns, and put it on His head, and put a reed into His hand, they spat upon Him, and struck Him with their hands, mocking Him by saying, "Hail, King of the Jews!" Then they led Him away to a place called Golgotha, and there they nailed Him to the cross, between two thieves, who were crucified with Him; and over the cross Pilate wrote the inscription: "*This is*

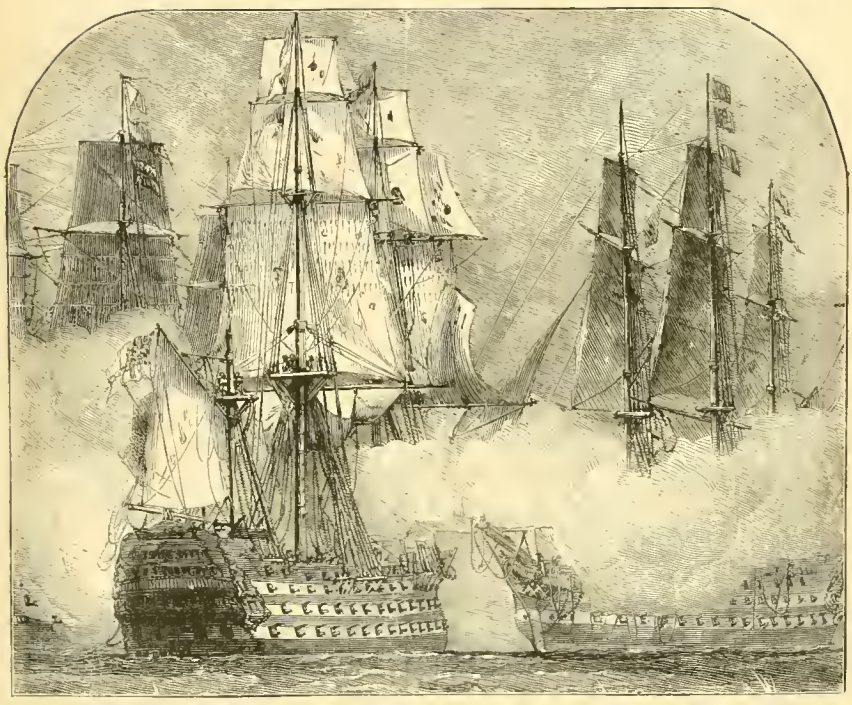
Jesus, the King of the Jews." So you see this good, holy Jesus, who had never had a wrong thought, or done a wrong action, was put to death between two thieves, as though He were as wicked as they.

A rich man, named Joseph, asked Pilate if he might bury Jesus in his own grave; and when he had obtained permission, he took the body down from the cross, and buried it in a tomb which had been hewn out of the side of a rock, and rolled a great stone before the mouth of it.

After three days some of the friends of Jesus and two disciples came to the grave, but they found Jesus was not in it—only an angel with a long white garment sat on the right side of the grave, who told them that Jesus Christ was risen from the dead.

He appeared to His disciples after His death, and bade them be of good cheer, and preach His Gospel to all people, so that they might believe on Him. And the disciples went out into the world preaching everywhere, so that many people grew to love the Lord Jesus, and to serve Him in their lives here, so that one day they too should see Him in heaven.

And now before I close these stories, I want to tell you that if you wish to be a disciple of the Lord Jesus Christ, you must try to do just what Jesus taught His disciples to do when He was upon earth. He sees *you* now, just as He saw *them* then; and just as they after His death kept His commandments, hoping to meet Him again in heaven, so must you do the same, resting in the same hope.



BATTLE OF TRAFALGAR.

THE HISTORY OF ENGLAND IN EASY LESSONS.

THE REIGN OF GEORGE I.

(How George I. was made king, and how James tried to obtain the throne again; how he was beaten at the battle of Sheriffmuir.)

JAMES, THE PRETENDER, AT THE BATTLE OF SHERIFFMUIR.

AS the children of Queen Anne had all died before her, it was settled by law that her second cousin, George, the son of her cousin Sophia, Electress of Hanover, should be king.

So George came over from Hanover, and was made King of England at Queen Anne's death. He was fifty-four years old, shy and awkward, and had lived in Hanover so long that he could speak but little English. Still he was a wise and prudent man, and on the whole made a useful king.

But some people in Scotland wished to have a king of the old family of Stuart, and so they encouraged young James,

the son of James II., to come to Scotland, and they promised him much support. Those who took his part were called Jacobites, from Jacobus, the Latin for James. He was also called *The Pretender*, because he pretended to the throne.

At last he landed on the coast of Scotland, and a number of men were collected together to fight for him, but the Pretender and his friends were beaten at the great battle of Sheriffmuir, near Dunblane, and he had to escape to France again as quickly as he could.

Five of the great Scottish lords, and many gentlemen and soldiers who had helped the Pretender in this attempt to become king, were put to death.

George the First died while he was visiting his own country of Hanover, after he had been king thirteen years, and his son, George II., reigned in his stead.

GEORGE II.

Like his father, George II. was rather an old man when he became king, and he spent a very great part of his life in Hanover, so he never looked much like an English King, or talked like one.

But for all this, he tried to be a good king, and he was a brave soldier.

His eldest son, Frederick Prince of Wales, however, quarrelled with him. Frederick had married a German Princess, and they lived in London; but they were not satisfied with the money George II. gave them, and there was much unhappiness. The Prince died before his father, leaving a little son, who was afterwards George III.

During the reign of George II. there was a war with Spain, and there was also a war with the French and Bavarians. The English gained some battles and lost others; but the story of all these things is too long for our little history, especially as there are other and far more important things to tell you about.

Thus, it was during this reign that Lord Clive beat the French in India, and conquered a great part of that country. Also, General Wolfe beat the French in Canada, so that ever since Canada has belonged to England. Also the Stuarts made another attempt to obtain the throne. This time it was

Charles Edward Stuart, the son of James who had come to Scotland in George I.'s reign. He was called in England the *Young Pretender.*

The King of France helped him with ships and men and money, and the young Prince landed in Scotland, where in the Highlands were many people who were fond of his family. At first he gained two or three battles, the chief of which was at Prestonpans, near Edinburgh, and he marched into England as far as Derby. But the English would not help him at all, and he was obliged to march back into Scotland again. At last, he was grievously defeated at the battle of Culloden, and had to escape back to France again. In his escape, he was greatly helped by a young lady named Flora Macdonald, who saved his life.

And many gentlemen and soldiers were executed, as before, for joining the Young Pretender. As Charles Edward and his brother Henry died without children, we have had no more Pretenders to the English throne, and no more wars about them.

George II. died in 1760, and his grandson, George III., was made king.

GEORGE III.

The reign of George III. was very long. He was king for sixty years! Was not that a long time? He was twenty-two years old when he became king, and eighty-two when he died. Now, I cannot tell you of everything that took place in this long reign; I can only tell you of two or three things of the most consequence.

One was the sad war between England and her North American Colonies. You will remember that in the reign of previous kings a number of Englishmen had gone to live in America. Well, the places in which they had gone to live were called the North American Colonies, and the Parliament of England wanted the Americans to pay taxes, but the Americans said, "No; by the old laws no Englishmen might be taxed without the consent of their representatives in Parliament." And so a war broke out about the payment of these taxes, the end of which was that the Colonists beat the English soldiers, and decided to have a country of their own, called the

United States of America, and they have now become a great and powerful nation.

HOW LORD NELSON WON THE BATTLE OF TRAFALGAR.

A great war took place in this reign with France. The French had a very clever and brave, but ambitious man, called Napoleon Buonaparte, for their leader and ruler. He was called the Emperor of the French. He conquered many countries, and wished to conquer our dear England. His great idea was to make the countries of Europe into one large Empire.

WELLINGTON AT WATERLOO.

But our brave admirals and generals, sailors and soldiers fought many battles, and in the end conquered the great Napoleon. Lord Howe gained the first victory at sea in this war, and there were Admirals Collingwood, Cornwallis, and many others who gained battles at sea. But the greatest of all these admirals, and the greatest England has ever had, was Admiral Lord Nelson. Among others, he gained three great victories—at Aboukir, in Egypt; at Copenhagen; and at last at Trafalgar, near Spain. And in this last victory he was killed; but before he died he knew his ships had won the

battle. Just before the battle began, he sent to every ship these memorable words:—

ENGLAND EXPECTS THAT EVERY MAN WILL DO HIS DUTY.

You must never forget these words, and no Englishman should ever forget them, because although you may not have to fight battles, yet you have something to do, some duty to perform, and you should do it thoroughly well, whether it is learning a lesson or fighting a battle.

THE BATTLE OF WATERLOO; THE REGENCY.

After this, there were many great battles fought on land, and there were many brave generals and soldiers who won battles for England. There were Abercrombie and Moore, both of whom, I am sorry to say, were killed. But the greatest general was the Duke of Wellington, who ended this long, sad war, by gaining a great victory over the French at Waterloo.

Soon afterwards George III. died. Before this, however, he had become blind, and had lost his reason when his youngest daughter died, so his son acted as king for him, and was called the Prince Regent, and this period—about eight years—is called the *Regency*.

There is one thing more I must tell you about George III.'s reign. There was a great rebellion in Ireland, in which many people were killed. After this was quelled, the people of Ireland sent members to the English Parliament, meeting in London. This was in 1801, and is known as the *Legislative* Union of England and Ireland.

GEORGE IV.

When George III. died his son, who had been the Prince Regent, became king. He was called George IV., and was fifty-eight when he came to the throne. He was a very accomplished man, but the people did not like him, for he cared much more about pleasing himself than for doing his duty as king. The Zoological Gardens in the Regent's Park were opened in this reign, and the well-known street, called Regent Street, was built in London. George IV. died when he had been king ten years.

WILLIAM IV.

George IV. had no children, so his brother William became king at his death. William was sixty-four years old when he

was made king, and he did not reign very long. But in 1832, the third year of his reign, a very important change was made. This is called the Reform Bill, by which it was arranged that many more people should vote for members of Parliament than had voted before, and that many little towns should leave off sending members.

Then another great change was that slavery was abolished in all the Colonies belonging to England. William Wilberforce had tried to do this before, but he had not been successful. Slaves, you must know, were black people from Africa who had been taken from their homes and made to work in other lands. The slaves were bought and sold like horses, and they were given food and poor clothes, but no money. This was all very wrong, and it was very wise of the English people to abolish the system entirely.

I must tell you of one other thing that happened in William IV.'s reign. Railways were first formed. The first railway made was between Liverpool and Manchester. William IV. died in 1837, when he had been king seven years.

QUEEN VICTORIA.

The Princess Victoria, who is still our beloved Queen, was the daughter of the Duke of Kent, who was the next brother to William the Fourth, and consequently Victoria is granddaughter of George III. As there is a law in Hanover that prevented a queen from reigning there, Hanover was separated from England when William IV. died, and the Duke of Cumberland, the fifth son of George IV., became king of that country.

Soon after Victoria became queen, there were riots in Canada, which took three years to put down; and there were some people in England called Chartists, who wished for some changes that were thought dangerous and foolish. These people gave a deal of trouble, but their meetings were stopped at length, and their leaders were sent over the sea.

Then there was a terrible war with Russia, called the Crimean War, and there was a fearful mutiny in India; but all these wars and troubles were got over successfully.

I could tell you many long stories about these and other things that have happened in Queen Victoria's reign, but perhaps I should weary you, and I want you to remember the

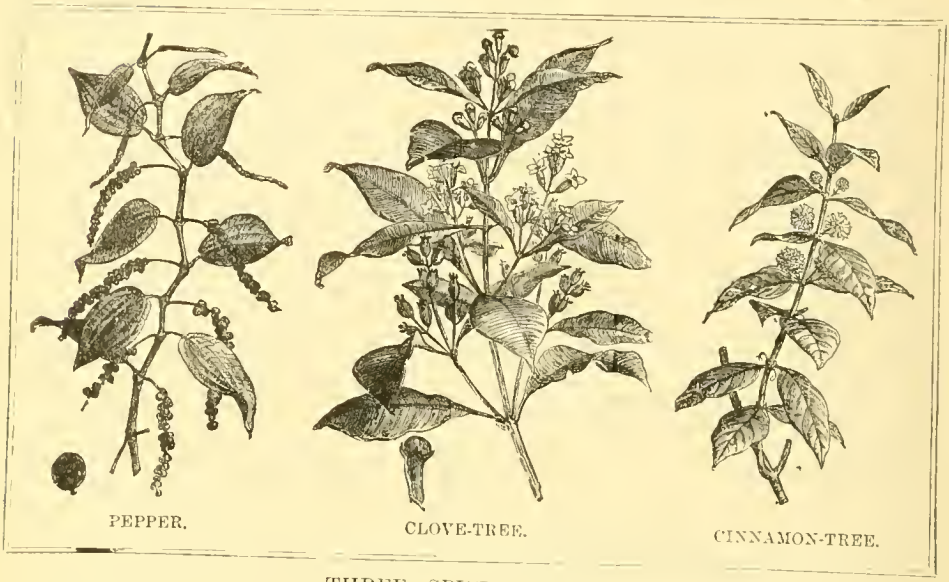
most important things. On the 10th February, 1840, Her Majesty was married to Prince Albert of Saxe-Coburg and Gotha; but, twenty-one years after, on the 14th of December, 1861, he died. This was a great grief to the Queen.

Many new laws and changes have been made in our good Queen's reign, and I want to point out to you that the reason why we English people live happily and have now no revolutions and disturbances like some other nations, is that we make all needful changes without violence. If someone thinks any change necessary, it is proposed in Parliament and talked about there, and written about in the papers, and spoken about at public meetings, and at last when the majority of the people are agreed about it, and the Houses of Parliament agree to it, then the change is made.

And many improvements have been effected in machinery for printing, so that books and newspapers can now be printed very quickly. Electric telegraphs have been invented and made to carry messages not only over the land, but under the sea, and railways have been constructed in almost every country in the world. There have been rebellions and dissatisfaction in Ireland because some of the people there want to have Ireland separated again from England: but this would do the Irish no good, because they have equal liberty with the English and Scotch, and full share in making the laws and governing the country.

The Queen and Prince Consort had nine children, the eldest of whom, the Princess Royal, is married to the Crown Prince of Prussia; the second, the Prince of Wales and heir to the throne, is married to the Princess Alexandra, of Denmark; the third, the Princess Alice, was married to Prince Louis of Hesse, but she died in 1878: the Princess Helena is married to Prince Christian; the Princess Louise to the Marquis of Lorne; the Duke of Edinburgh to the only daughter of the late Emperor of Russia; the Duke of Connaught to the daughter of Prince Charles of Prussia; Prince Leopold to the daughter of the Prince of Waldeck; and Princess Beatrice.

And now I must close my little History. Try and remember what I have told you, and then when you are older and read larger histories, it may perhaps help you to understand them.



THREE SPICE PLANTS.

STORIES OF THE PLANTS AND FLOWERS.

STORY VIII.—SOME SPICE PLANTS.

GINGER PLANT.

I SUPPOSE you know what spices such as nutmeg, clove, cinnamon, &c., are used for. Well, all these very nice and useful articles come from trees and plants. I will tell you a little about them, and you must be careful to remember what I tell you.

The cinnamon-tree is a native of Ceylon, where its cultivation was carried on by the Dutch a century and a half before the island belonged to Great Britain. The cinnamon of commerce consists of the bark stripped from the branches of the trees by the cinnamon-peelers, and dried. The nutmeg-tree grows to a height of thirty feet. It bears a fruit the size of a peach, harsh and uneatable; but the kernel is the nutmeg, and the fibrous covering round it is the spice called mace. The Dutch East India Company at one time made great efforts to preserve the monopoly of the nutmeg market, by destroying the nutmeg-tree wherever they found it,

except in their own settlements, sending out expeditions for the purpose; but in time the English, French, and Portuguese took a large share of the trade. The pepper shrub is largely cultivated in Sumatra, and found also in Borneo and the adjacent islands, and furnishes in its seed-corns, gathered before they are ripe, and dried, one of the most universally diffused of the spices. White pepper is obtained by removing the outer husk of the black pepper. In the Middle Ages, a few pounds of pepper constituted a gift to offer a prince. The clove-tree furnishes, in its flower-buds, the aromatic cloves used as spice. At one time the sale of spices constituted a great item of the commerce of Holland. The ginger-plant grows in Asia, and the ginger we buy in the shops is the dried root-stem or rhizome of the plant. The rhizomes when very young, or the young shoots of old rhizomes, are used for preserving, and form in this state preserved ginger. The ginger of the shops is found in two conditions,—as *white*, or *uncoated ginger*, and as *black*, or *coated ginger*. The former is prepared from the rhizomes by washing, scalding, scraping, and drying; the latter is prepared in a similar manner, but the scraping process is omitted. The essential distinction between the two consists therefore in white ginger having the outer skin removed, while in black ginger it remains as a shrivelled membrane.

NUTMEG-TREE.

ABOUT THE FLAX PLANT.

Now, before I conclude, I have to tell you of another very useful plant, the flax plant, the fibres of which are spun into "yarn"—a sort of thread—and of this thread, sheets and all kinds of cloth which we call linen are made. Now, I will tell you how this is done.

Flax is obtained from the stalks of the flax plant, which is supposed to have been originally brought from Egypt, where linens have been woven from its fibres from the earliest times. The flax plant is now found growing wild in this country, and is cultivated in most parts of Europe, either for its stalks to

make flax, or for its seed (linseed), which is used for fattening cattle, and yields an oil (linseed oil) much used in the making of paint. The plant grows to two or three feet in height, bears a blue flower in July, and has a great hollow stem; when gathered, it is pulled up by the roots. The fibres of flax are very long and even; it is the inner part which yields the best.

Flax, before being spun into "yarn" for weaving linens, undergoes several processes, to separate its fibres sufficiently, and to rid them of all short or uneven portions.

The first operation consists of a kind of fermentation called "retting," the stalks of the flax being packed up in bundles, steeped in water or exposed to damp air, and spread out, till they soften and become fit for the next process, called "breaking." This is done by contrivances which beat and bruise, or give it several short bends, the object being to break off the outer part, called the "boon," and leave the inner fibres or "harl" free; this, which is the part to be used, is thus in a great measure freed from the outer part, but to do so completely it is scraped with a blunt kind of knife till all the "boon" is gone.

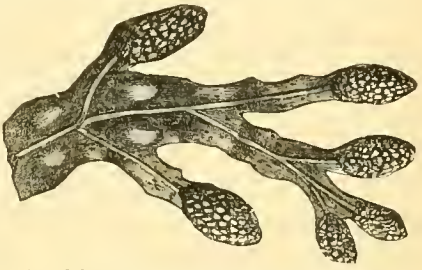
FLAX PLANT.

The next process is called "heckling," a sort of combing, in which the flax is dragged through brushes of fine iron spikes, used closer and closer till the flax is combed out quite fine and perfectly free from knots or uneven pieces, being beaten from time to time to break or separate the fibres. During this process much of the short and uneven fibre collects in the "heckle," and is called "tow," which has to be separated and the fibres arranged similarly to "carding" cotton. The flax has then to be drawn out, doubled, and drawn out again into "slivers," also in the same way as described for drawing out cotton, and these slivers are finally twisted into yarn, being previously wetted to take off their stiffness. The

yarn is then wound upon bobbins, forming the material from which linens and other goods are woven.

SOMETHING ABOUT SEA WEED.

We could not finish our little stories on botany without saying something about the quantity of vegetable life that exists in the sea. The humblest members of the vegetable kingdom belong to this class. They are flowerless, and consequently seedless, and there are a great number of different kinds. Many are used for food in different parts of the world, while the ashes of several kinds of sea-weeds form *kelp*, formerly extensively used for the preparation of carbonate of soda. Iodine, a preparation much used by doctors, is also obtained from sea-weeds. None of the plants in the great class of sea-weeds are known to be poisonous.



A PIECE OF SEA-WEED—THE COMMON BLADDER-WRACK.

The common Bladder-wrack was formerly much used for procuring soda, its ashes containing a considerable quantity; it is also used for manure.

CONCLUSION.

We must now conclude; but let me give you one word of advice at parting. When people are desirous of learning useful facts, they have a habit of thinking over what they have been reading, for the mind is naturally forgetful, and it is necessary to run over what one has been reading if there be a desire not to forget it. Now, in the short lessons we have so far had, we trust that there has been so much to interest and instruct that you will not desire to forget what you have read, but will rather want to recall to mind the various striking facts about buttercup, blackberry, and flowers and plants of all sorts every time you come across them until you have learnt these facts thoroughly. Then we are sure that you will not be satisfied with the small amount of knowledge contained in these lessons, but will desire to learn more, and in learning more you cannot fail to be struck with the great goodness of the Giver of all things who has placed such things as plants for our use on the face of the earth.

LUCY *IS* READING A BOOK, NOT LUCY ARE READING A BOOK.
SHE *WAS* PLAYING WITH HER DOLL, NOT SHE WERE PLAYING WITH HER DOLL.

GRAMMAR.

VIII.—THE VERB "TO BE."

MR. WASP AND MRS. BEE *ARE* GOING OUT FOR A WALK, NOT *IS* GOING OUT FOR A WALK.

THE Verb *To be* is a little more difficult than the Verb *To have*, and must be learned perfectly. You will remember what I told you before about the Moods and Tenses of a Verb. Here it is,—

INFINTIVE MOOD.

To be.
Present Participle—Being.
Past Participle—Been.

INDICATIVE MOOD.

PRESENT TENSE.

Singular Number—I am.	Thou art.	He is.
Plural Number—We are.	You are.	They are.

IMPERFECT, OR PAST TENSE.

Singular Number—I was.	Thou wast.	He was.
Plural Number—We were.	You were.	They were.

FUTURE TENSE.

Singular Number—I shall or will be.	Thou shalt be.	He shall be.
Plural Number—We will be.	You will be.	They will be.

Conditional Mood.

Singular Number—I should or would be. Thou should'st be. He should be.
Plural Number—We should be. You should be. They should be.

Imperative Mood.

Singular Number—Be thou. Let him be.
Plural Number—Let us be. Let them be.

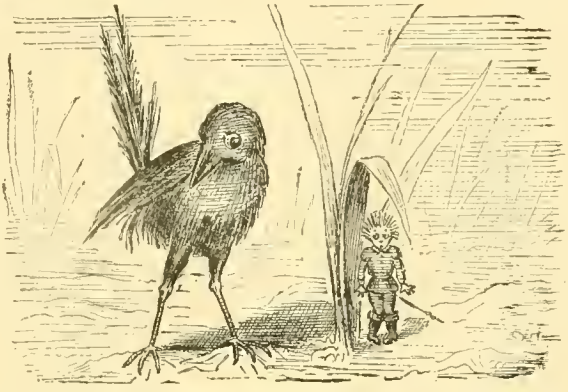
Subjunctive Mood.

PRESENT TENSE.

Sing. Num.—That I may be. That thou may'st be. That he may be.
Plu. Num.—That we may be. That you may be. That they may be.

PAST, OR IMPERFECT TENSE.

Sing. Num.—That I might be. That thou might'st be. That he might be.
Plu. Num.—That we might be. That you might be. That they might be.



OH, WHAT A BIG BIRD IT IS! I MUST HIDE!

[You should now be able to tell the part of speech to which each of these words belong.]

Now, before I conclude, I will give some little sentences showing the tenses of verbs, thus:

PRESENT TENSE.

The sun shines.
The needle pricks.
He mends a pen.
She plays the piano.
John eats the apple.

FUTURE TENSE.

We shall be sorry to go.
The moon will rise soon.
You will dine on the boat.
We shall dine at three.
She will have a new dress.

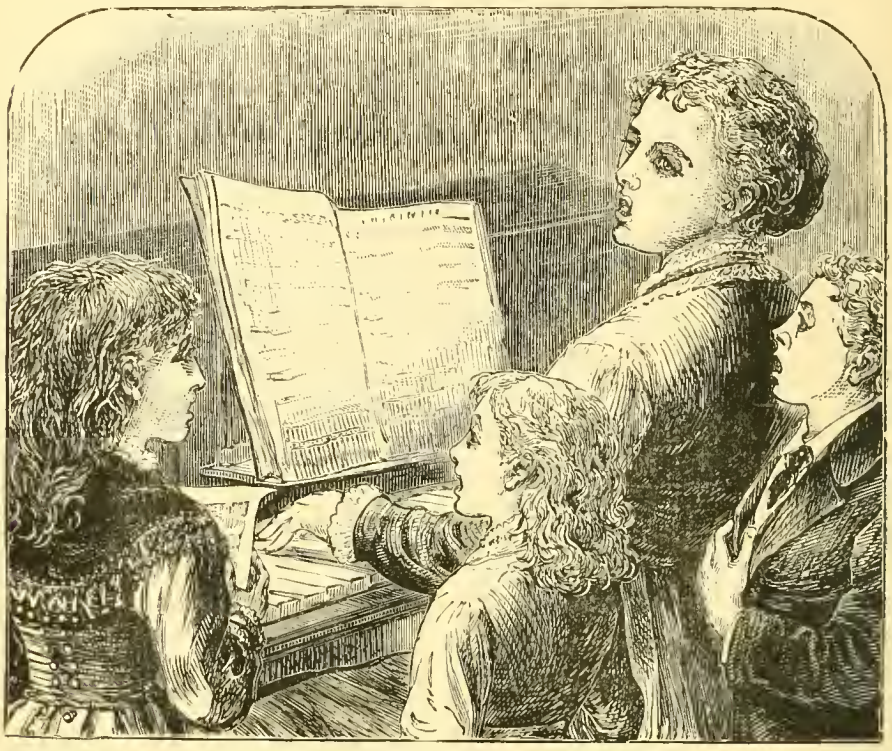
IMPERFECT OR PAST TENSE.

I walked to London yesterday.
You wrote a letter.
He was reading this morning.
He played at ball.
She taught me French.

IMPERATIVE MOOD.

Let him go.
Come at once.
Let us in.
Shut the door.
Learn your lesson.

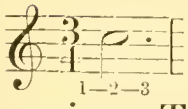
If my readers can remember all I have taught them in this easy Grammar, they will find it a great help to them in learning more difficult grammars when they are older.



A HOME CONCERT, AFTER LEARNING THE LESSONS IN "THE INSTRUCTOR."

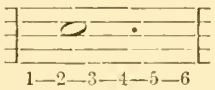
MUSIC AND SINGING.

DOTS AND RESTS: CONCLUSION.



A DOT placed after a note makes the value of the note half as much again. Thus, if you came to a bar containing a Minim and a Dot after it, you would count 1—2 to the Minim, and 1 to the Dot, making in all, 1—2—3. Such a bar would occur in a piece of music written in $\frac{3}{4}$ time, like the picture at the initial.

A Dot placed after a Semibreve would be worth half the Semibreve, and 1—2 must be counted to it; because you know a Semibreve is worth four

beats, and two is the half of four. Therefore, a Semibreve and a Dot would be worth six beats, thus 

A Dot placed after a Crotchet would be worth half a beat; after a Quaver, a quarter of a beat; after a Semiquaver, half a quarter, or one-eighth of a beat; and after a Demisemiquaver, a quarter of a quarter of a beat, or one-sixteenth of a beat. Do not forget that a Dot is just *half* the value of the note it follows.

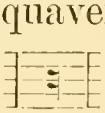
Now for the Rests. There are just as many Rests as there are notes, and a Rest is of just the same value as the note itself. This is a Semibreve Rest; it is worth four beats, just like a Semibreve

This is the Minim Rest; it is very like a Semibreve Rest, except that it is printed over or upon the line, instead of under the line, thus

To this, of course, you would count two, just as you would to a Minim.

A Crotchet Rest is something like the figure 7 turned the wrong way. Here it is.
To this you would count one, as you would to a Crotchet.

A Quaver Rest is even more like the figure 7, because it is turned the right way, thus,
Count this as you would a Quaver.

The Semiquaver Rest looks like the figure 7 with two heads,  and the Demisemiquaver Rest has three heads, thus,

A Rest is generally placed at the end of a bar, and its use is as its name suggests,—that

you allow your fingers to remain idle while you count the value of the Rest, before going on to the next bar. Here are all the rests in their proper order, with their value :—

1—2—3—4	1—2	1	$\frac{1}{2}$ of 1	$\frac{1}{4}$ of 1	$\frac{1}{8}$ of 1
SEMIBREVE REST.	MINIM REST.	CROTCHET REST.	QUAVER REST.	SEMIQUAVER REST.	DEMISEMI-QUAVER REST.

Write them all out for yourself, without the help of the book, and try to remember their use and value. And you should practice a little every day, for remember that practice makes perfect, and when you are quite sure that you thoroughly understand all my little lessons, then you may go on to more advanced ones.

Now I must bid my little readers "good-bye." Some day, perhaps, they will be clever musicians,—able to play and sing long, difficult compositions; but they must not forget that the information contained in these easy lessons upon music will be as useful to them then as it is now. Or if they are not very clever musicians themselves, they may be able to appreciate more thoroughly and enjoy better the efforts of those who are.

QUESTIONS.

How many notes are there in an octave?

How many lines are there in printed music?

Why may we liken the notes upon the piano to birds?

What is the use of a dot?

How many beats is a crotchet worth?

How many is a semibreve worth?

What is the value of a rest?

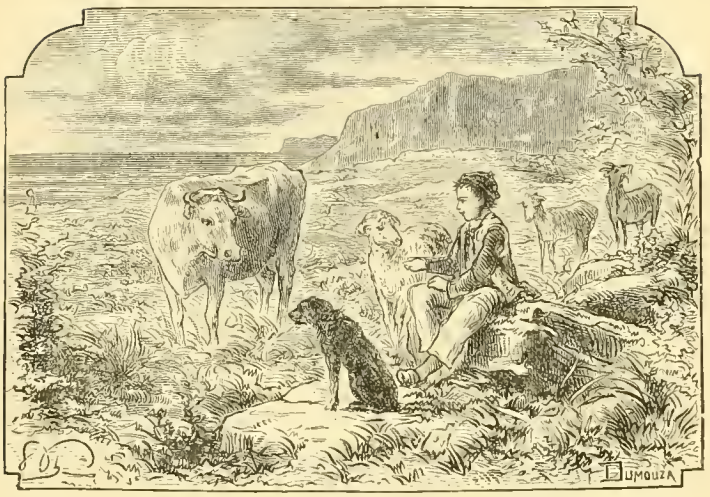
Write out the rests in their order.

Write out the notes in their order, and state their value.

What do I mean by a piece of music written in $\frac{3}{4}$ time?

What does ¢ stand for?

Why is it called common time?



WIL-LY WAS KIND TO AN-I-MALS.

FIRST STEPS;

OR,

EASY LESSONS IN READING & SPELLING.

CONCLUSION.

WHEN Harry had learned the words of three syllables, of which I told you last time, his mamma thought he might go on to a more advanced stage altogether, and so having told you how he took his "first steps" in Reading and Spelling, I think we must now bid him "Good-bye." But I hope you will copy his example, and get on well with your reading and spelling; I am sure you will if you only try. Here are two of his little reading lessons by way of conclusion.

Wil-ly's fa-ther was a far-mer, and kept sev-e-ral goats and sheep and cows. Wil-ly was kind to an-i-mals, and of-ten went in-to the fields with his dog to see the cat-tle. He used to sit on a stone, and they were so fond of him that they would come to him, and let him stroke them, and feed them.

SHEEP WASH-ING.

In the hot weath-er, sheep are put in the wa-ter to be washed before their wool is cut off. The wash-ing makes them cool, but at first they do not like to go into the wa-ter, and men push them in and rub them well be-fore they are let out a-gain. Then, af-ter a few days, men with large pairs of shears, like very big scis-sors, cut off the wool. The wool is sent to the mills to be made in-to cloth. Coats and dress-es are made of the cloth.

OUR EXAMINATION.

HAVING now concluded our lessons, we must, like other "scholastic establishments," hold our examination. The children who have been taught the lessons in the preceding pages should be able to answer most of these questions at once, but the replies are given to show the children how to put their answers into concise language and to fix them in their memories, or to enable the teacher to use the catechetical system if preferred.

I.—BIBLE KNOWLEDGE.

Who made the world, and all things in it?

The great God, the Creator of all things.

What is meant by Creator?

One, who out of nothing, brings something into existence.

Who made the first man and woman?

God; their names were Adam and Eve.

Where did they live?

In a beautiful garden, called the Garden of Eden.

How did they sin against God?

By being disobedient; that is, by doing what they were told not to do.

Did God punish them?

Yes; He would not let them stay in the beautiful garden any more.

What did they do then?

They had to live outside the garden, where it was not nearly so pleasant, and Adam had to work hard and they had to bear a great deal of pain.

Who were Adam and Eve's first children?

Cain and Abel.

Did they try to act rightly?

Abel tried to do what was right; but Cain was wicked.

What great sin did he commit?

He was jealous of his brother Abel, and killed him.

Did God punish him?

Yes, very severely.

What do we learn from these facts?

That sin always brings unhappiness.

And can we learn anything else more particularly from this story of Cain and Abel?

Yes; that we must learn to govern our naughty tempers so that they never get the better of us.

Who was Enoch?

Enoch lived some time after Cain, but he was a very good man, so that it is said of him "that he walked with God."

Who was the oldest man?

Methuselah, the son of Enoch.

As time went on, and more women and men lived on the earth, did they think of God, and try to do right, and please Him, or were they wicked?

Many were wicked and forgot God.

How did God show His displeasure?

By causing rain to fall for so long a time and so heavily that a great flood came, the waters rose higher and higher, and drowned nearly everybody.

Were all the people destroyed?

No, for God had told a good man called Noah to build a big boat called an ark, which floated on the water, and in the Ark, Noah and all his family were saved and many animals with them.

How long did it rain?

For forty days and forty nights.

How long did Noah and his family remain in the Ark?

For many months.

When the rain left off and the water went down, where did the Ark rest?

On Mount Ararat.

When Noah came out of the Ark, what did he do?

He offered a sacrifice to God; and a rainbow shone out in the sky, and God appointed it as a sign that He would not again destroy the world by a flood.

Who were the three sons of Noah?

Shem, Ham, and Japheth.

After a number of years had passed by, and there were again a number of people in the world, did they forget God?

Yes, and many of them were again very wicked.

Tell me the name of a good man, who was one of the descendants of Shem.

Abraham.

What was he noted for?

His faith in God.

Tell me about the trial of Abraham's faith.

God commanded him to sacrifice his son Isaac, and just as he was about to do so, God sent His angel to show him a ram caught in a thicket, which could be sacrificed instead.

What was the name of Abraham's son?

Isaac.

What were the names of Isaac's sons?

Jacob and Esau.

How many sons had Jacob?

Twelve.

Tell me the name of his favourite son.

Joseph.

What did he give him?

A coat of many colours.

Did his brothers hate Joseph?

Yes.

Why was this?

Because they were jealous of him.

What did they do to him?

One day when Jacob sent him to them in the fields, the brothers stripped him of his coat and put him into a pit; then they sold him as a slave to some Ishmaelites.

Where did the Ishmaelites take him?

Into Egypt.

Who was the king of Egypt then?

Pharaoh.

How did Joseph come to know Pharaoh?

He interpreted a dream that Pharaoh had, and he acted so wisely that Pharaoh made him a ruler in the country.

Did Jacob and his other sons come to Egypt?

Yes, and Joseph was kind to them.

What were the descendants of Jacob called?

Israelites, because Jacob's name was changed to Israel.

After a long time, when there were many Israelites in the land of Egypt and another Pharaoh was king, did the Egyptians oppress the Israelites?

Yes; they caused them to make bricks and to work very hard.

What cruel law did this Pharaoh make against the Israelites?

That all the little boys were to be killed.

Why was this?

Because he was afraid the Israelites would become too strong for the Egyptians.

How did God show His power on behalf of the Israelites?

He sent many plagues upon the Egyptians, until Pharaoh said they might go away.

What good man led the Israelites?

Moses.

How was it that he was not killed when a baby boy?

His mother hid him in an ark of bulrushes among the reeds of the river, and Pharaoh's daughter coming there to bathe, liked the little boy, and had him brought up in the king's house.

Did Pharaoh follow the Israelites after they had gone?

Yes; but God made a dry path for them through the Red Sea by dividing the water and making it stand up like a wall on each side, and when the Egyptians tried to follow them, the water rolled back and drowned them all.

Did the Israelites love God as they should, when they were in the wilderness?

No, they often forgot Him, and were disobedient.

What great event took place while they were in the wilderness?

God gave the "Ten Commandments" on Mount Sinai to Moses.

When the people forgot God, what great sin did they commit?

The sin of idolatry; this is worshipping gods of wood or stone, or worshipping anything except the One True God.

How long were the children of Israel in the wilderness?

Forty years.

In what land did they live at last?

Canaan.

How were they ruled for a long time after they came to Canaan?

By Judges.

Tell me the name of one of the most famous of these Judges.

Samuel.

When he was a little boy, did his mother dedicate him to the service of God?

Yes; she left him with Eli, who was God's high priest at that time, and who brought him up to do service in the Temple.

Did Samuel grow up to be a prophet of the Lord?

Yes, and he was one of the best Judges that the Israelites ever had.

When Samuel became an old man, was there a great war?

Yes, between the Israelites and the Philistines.

What was the name of the giant who came from the Philistines' camp?

Goliath, and all the Israelites were afraid of him; but one day there was a shepherd boy come to see his brothers in the Israelites' camp, and he said he would go out and fight the giant.

What was the boy's name?

David.

How did he fight the giant?

He took only a sling and some stones, and the giant laughed when he saw David, for he looked so young and so small.

What did David do?

David knew that God would help him, and he slung one of the stones, and it hit the giant in the forehead and killed him.

Did David become king?

Yes, and he was one of the best kings the Israelites ever had.

A long time after David was king, what event of great importance happened?

Jesus Christ, the Saviour of the world, was born in Bethlehem of Judæa.

Were shepherds watching over their flocks near Bethlehem?

Yes; and one night they saw a bright light in the sky, and heard an angel's voice.

What did he say?

Not far from them there was a little new-born babe, who was Jesus Christ their Saviour.

Did the angel say anything more?

Yes, where they would find Jesus; and then a number of angels appeared, praising God.

What did the shepherds do?

When the angels had gone back into heaven, they went into Bethlehem.

Did they see Jesus?

Yes; they found Him lying in a manger.

Why was Jesus lying in a manger?

Because the town was very full of people, and there was no room at the inn.

Did any other people come to see Him about the same time?

Yes; some wise men from the East.

How did they come there?

They saw a bright star, and followed it until it led them to the place where Jesus was lying.

What did they do?

They went in and worshipped Him, and gave Him many gifts.

Can you tell me the name of a wicked king who lived at this time?

Herod.

What did he do?

He ordered that all the little children in Bethlehem who were two years old and under should be killed.

Why did he do this wicked thing?

He hoped that Jesus would be killed.

What did God tell Joseph, the husband of Mary, to do?

To take Jesus and His mother Mary away to a place of safety.

Where did Joseph go?

To Egypt, and they stayed there until the wicked king died.

Did they go back to Bethlehem?

They went to a city called Nazareth.

What did Jesus learn to be?

Joseph was a carpenter, and Jesus learned to be a carpenter too.

Did He grow in wisdom and knowledge?

Yes, and was loved by all who knew Him.

When Jesus was twelve years old, did His parents take Him to Jerusalem?

Yes, and they lost Him for some time.

When they found Jesus, where was He?

He was in the Temple talking to the learned doctors, who were amazed at His wisdom.

What did Jesus do when He grew up to be a man?

He preached in all the cities, and healed many sick people, and taught them to love God and do what was right.

How many disciples had Jesus?

He had twelve.

Were they rich, clever men?

No, they were mostly poor fishermen whom He found by the sea-side.

Did Jesus teach them to preach and perform miracles?

Yes, and they loved Him, and knew He was Jesus Christ, the Saviour of the world.

What beautiful sermon did Jesus once preach on a mountain to a multitude of people?

That which is written in the fifth, sixth, and seventh chapters of Matthew. It is called the Sermon on the Mount.

Was Jesus so poor that He had no resting place by night, and was He often hungry and thirsty?

Yes, but He never complained, and He used to comfort His disciples when they were down-hearted.

What did Jesus do to a dear little girl who fell ill and died?

Jesus raised her to life again.

Who asked Him to do so?

Jairus, her father, who knew how good and kind Jesus was.

Did a great crowd of people follow Jesus into a desert place one day?

Yes, and He healed all their sick.

And when the evening came, and the people were hungry, did Jesus ask the disciples what food they had to give the multitude?

Yes, and they said only five loaves and two small fishes.

What did Jesus do?

He took this food, and by a miracle made it enough for all the people.

One night when the disciples were with Jesus in a small ship in a storm, were they afraid?

Yes, but Jesus rebuked the storm, and it was instantly hushed, and all was peace again.

Was Jesus very fond of little children?

Yes; Jesus loved the little children, and when the mothers brought them to Jesus, He took them in His arms and blessed them, and said, "Suffer the little children to come unto Me," and He would not have them sent away.

The Chief Priests, Pharisees, and Scribes hated Jesus and wanted to kill Him, but did not some of the people love Jesus?

Yes, and those whom He had healed, loved and believed in Him.

Did Jesus ride into Jerusalem?

Yes; on the back of an ass.

As He rode what did the people do?

They spread their garments and strewed branches of trees on the way before Him, and sang praises to Him.

Did this make the Pharisees angry?

Yes.

Can you tell me the name of the wicked disciple who betrayed Jesus?

Judas Iscariot.

Was this man very fond of money?

Yes, and he went to the wicked people and asked them how much money they would give him if he would betray Jesus.

How much money did they promise to give him?

Thirty pieces of silver.

Did Jesus know this?

Yes, and He ordered a supper in the room of a house where He could partake of it with all His disciples.

What did Jesus say at supper?

He told them that one amongst them would betray Him, and deliver Him up to death.

What did the disciples say?

They were all very sorrowful, and each asked Him, "Master, is it I?"

What was the name of the disciple who said he would never leave Jesus?

Simon Peter.

What did Jesus tell Peter that he would do?

Jesus said, "This night, before the cock crows you will deny me thrice."

What did Peter say to this?

He said he would rather die than deny his Lord.

Where did Jesus and His disciples go after the supper?

Into the garden of Gethsemane.

What happened in this garden?

Jesus was betrayed by Judas.

How was He betrayed?

Judas came forward and kissed Him to show His enemies which was Jesus.

Did Jesus run away?

No.

What did they do with Him?

They took Him before the High Priest.

Did Peter follow?

Yes; he followed afar off, and at length came into the hall of the house where Jesus had been taken.

Did anyone speak to him?

Yes, a maid said to him, "You also are one of Jesus' disciples."

What did Peter say?

He denied it, and said, "No, I am not."

How often was Peter asked if he was one of Jesus' disciples?

Three times.

What did Peter hear then, that made him think how naughty he had been in denying Jesus?

The cock crowed, and then he remembered what Jesus had said, and Peter felt very sorry, and he went out and wept bitterly. For Peter really did love Jesus very much.

What was done with Jesus next day?

He was taken before a judge, Pontius Pilate, who did not know Jesus, and he said, "What has He done?"

What did the wicked people reply?

They said, "He calls himself a king."

And what was done with Jesus at last?

He was crucified on the cross, but He asked God to forgive those wicked people who hung Him there.

Where was Jesus buried?

In the tomb of a rich man named Joseph.

But what happened then?

On the third day after He had been put into the tomb, He rose again and appeared to His disciples.

And then what occurred?

After a few days He ascended into heaven, "where He ever lives to make intercession for us."

And how can we show our gratitude to Him for all He has done for us?

By loving Him and trusting Him. By trying to keep His commandments, and doing what He has told us to do.

And how does Jesus sum up His commandments?

He said, "Thou shalt love the Lord thy God with all thy heart and with all thy soul and with all thy mind . . . and thy neighbour as thyself; on these two commandments hang all the law and the prophets."

II.—ENGLISH HISTORY.

What people first lived in this country?

The Ancient Britons; they were very wild, and dwelt in woods.

How did they dress?

In the skins of wild animals, and they painted their bodies blue with a plant called woad.

Who were the priests of those days?

The Druids.

And in what places used they to worship?

Thick groves of oak trees, and huge piles of immense stones.

Did the Druids teach the people the religion of the true God?

No; they taught the people to worship the sun, the moon, oak trees, and serpents.

What mighty people wished to conquer Britain?

The Romans, who had already conquered France; they came over to Britain, but many years passed before they conquered it.

Was it a good thing for Britain that the Romans came?

Yes, afterwards, because the Romans made many roads, and built towns, and taught the Britons many things which they did not know.

How long did the Romans retain possession of Britain?

About four hundred years.

After the Romans left Britain what became of the country?

The Piets and Scots, a wild and warlike people from the northern part of Britain, came and did a great deal of mischief.

Tell me one great reason why they were able to do this?

The Britons were then governed by a number of princes, who, instead of uniting together to drive these terrible foes away, were foolish enough to quarrel, and go to war with one another.

How came the Saxons in England?

Vortigern, a British Prince, invited them over to help him fight against the Piets and Scots.

Where did the Saxons come from?

They lived in the north part of Germany, and parts of Holland and Denmark, which were then very barren countries.

What were the names of the two Saxon Chiefs who came?

Hengist and Horsa, and they soon made the Piets and Scots to go back to their own country.

What happened then?

The Saxons quarrelled with the Britons, and fought with them, and after a long time established themselves in the country.

What was the Saxon Heptarchy?

The Saxons divided England into seven kingdoms, and they were known as the Saxon Heptarchy. In 827, one of the kings, named Egbert, conquered the others, and became king of the whole.

What people were very troublesome during Egbert's reign?

The Danes; they used to ravage the country and cause great misery.

Can you tell me the name of the wisest and best king in those days?

Alfred; he did so much good for England that he has been called "Alfred the Great," and Good King Alfred.

When he was king did the Danes conquer at first?

Yes, and Alfred was obliged to disguise himself, and flee, and his adherents were all scattered.

Where did Alfred go?

He hid in the small hut of a man who kept pigs, and the wife of this man, not knowing who he was, set him to watch and turn some cakes.

Did King Alfred attend to them well?

No, he was thinking over his misfortunes, and considering what he had better do, and he forgot the cakes, and they were burnt, and when the woman returned she scolded him.

What did King Alfred do after hiding himself for some months?

He disguised himself as a harper, and went to the Danish camp, and discovered that they considered him dead, and were enjoying themselves, and were not prepared for battle.

What did Alfred do?

He quietly left the camp, and gathering all his people together, he fought a great battle with the Danes, in which he was victorious; they were so completely defeated that they did not trouble the land for some time.

Who succeeded Alfred?

His son Edward; and Athelstan, Edward's son, was king after him. They were both wise and brave kings.

Who was King Edgar?

He was the fourth king after Athelstan; he was called "The Peaceable," because during his reign no foe disturbed the land.

How did Edgar clear the forests of the wolves?

He permitted the Welsh to pay their taxes in wolves' heads instead of money, and in about four years' time there were very few, if any, wolves left.

Did the Danes trouble England again?

Yes; and a dreadful war commenced, which lasted for several years, until the Danish king Canute was crowned King of England.

Was he a bad king?

No; he was called Canute the Great, because he ruled wisely and well, and showed a great regard for religion, law, and justice.

Who reigned after Canute?

His two sons, Harold and Hardicanute.

Did the crown then pass to the Saxons again?

Yes, it passed to Edward the Confessor, and then to Harold II.

What was the battle of Hastings, and between whom was it fought?

It was a terrible battle fought between William of Normandy and Harold.

Who gained the victory?

The Saxons fought bravely, but William was completely victorious.

What became of Harold?

An arrow struck him in the eye and he was killed.

Did the Normans treat the English well?

No; the Normans were most cruel to them, and took their houses and lands from them, and their sufferings in every way were great.

Did the Normans improve the land?

Yes; they made many improvements, and they knew more about building, and could till the ground better.

What was the Domesday Book?

A great work which William caused to be compiled, containing a register of all the English towns and land, recording the size of each estate, to whom it belonged, and what the owner did with it.

What was the Curfew Bell?

William made a law that at eight o'clock every night a large bell was to be rung in every town and hamlet as a signal that all fires and candles were to be put out.

Who succeeded William?

His son William, surnamed Rufus because of his red hair, became King of England.

Was he a bad man?

Yes, a very bad man, and even more tyrannical and cruel than his father.

What were the Crusades?

They were wars undertaken to drive away the Mahommedans from the Holy Land.

How was William killed?

He was found dead in the New Forest, and it is thought he was shot by one of his followers, for he was much disliked.

Who succeeded him?

His brother Henry. He was called Beauclerk—fine scholar.

Was Henry a good king?

He was a much better king than William I. or William Rufus.

What great grief befell Henry?

His son and daughter were both drowned.

Who reigned after Henry?

Henry left the crown to his daughter Maud, but she was away in France when her father died, and her cousin Stephen seized the throne.

What terrible disaster ensued?

For nearly fifteen years there was civil war, during which time there was great misery in England.

How did the civil wars end?

It was decided that Stephen should reign for the rest of his life, and at his death Maud's son Henry Plantagenet should be king.

Was Henry II. a good king?

He was good and wise in very many things; he drove away the foreign soldiers and redressed the wrongs of the people.

How came Thomas à Becket to be murdered?

Henry, who frequently quarrelled with the Archbishop of Canterbury, one day, in a fit of passion, said he wished that troublesome priest were dead, when some of Henry's followers wishing to gain favour, rode off to Canterbury and killed the Archbishop before the altar.

Was Henry sorry for what had been done?

Yes, he was shocked when he heard it, and to show his sorrow for what he had said, he stood at the altar and allowed some monks to whip him on his bare back.

What conquest took place in this reign?

That of Ireland, which has ever since been under the same king as that of England.

When Henry died, who succeeded him?

His son Richard, called Cœur-de-Lion because he was very brave.

What war did he engage in?

He went to the Holy Land to fight the Mahommedans.

Did he conquer Jerusalem?

No; he became ill and had to return home.

What happened as he was returning?

His vessel was wrecked in the Gulf of Venice, and he was made prisoner by the Duke of Austria. The old stories say he was discovered by a wandering minstrel named Blondell, who heard the King singing within the prison. He was set free on payment of a large sum of money, and he died soon after.

Who was king after Richard?

His brother John. He was a bad and cruel king.

What was the great event of his reign?

The signing of Magna Charta, by which many liberties were secured to the English people.

Who was king after John?

Henry III., who reigned for many years.

Who was king after Henry III.?

Edward I., then came Edward II., and then Edward III. Edward I. and Edward III. were good and brave, but Edward II. was a bad king, and had a bad wife. He was cruelly murdered at Berkeley Castle.

Who was king after Edward III.?

His grandson Richard II., but he was not a wise king or a just man, and he was deposed, and his cousin Henry made king instead, under the title of Henry IV.

Was Henry a good king?

Yes, a fairly good king on the whole, and the country prospered.

Who was the next king?

Henry V., who won the famous victory at Agincourt, in France; but he died young, and his infant son Henry VI. became king.

What happened in this reign?

The Wars of the Roses began. These wars were between Henry and his cousin Edward of York as to who should be king. Henry's badge was the red rose and Edward's was the white rose.

How long did the wars continue?

For nearly thirty years; until at last, at the Battle of Bosworth, in 1485, *the descendants of Henry gained the victory.*

What was Henry's other name?

Tudor, and he and his descendants are known as the Tudor sovereigns of England.

What great event took place in Henry's reign?

America was discovered.

Who was king after Henry?

His son, Henry VIII., who married six wives. The great change with regard to religion, called the Reformation, began in this reign.

Who was king when Henry VIII. died?

His son, Edward VI., and in his reign Protestantism was more fully established. He died very young.

Who reigned next?

His half-sister Mary, who hated the Protestants and burned a great many of them. Elizabeth, Mary's half-sister, was the next queen.

What great event occurred in her reign?

England defeated the great Spanish Armada.

Who was king after Elizabeth?

James I., her cousin. He was a very foolish king, and tried to make the people pay him money without the consent of Parliament.

What great event happened in this reign?

The Gunpowder Plot. Some Roman Catholics wished to blow up the King and the members of Parliament by exploding gunpowder underneath the Houses of Parliament.

Were they successful?

No, for Guy Fawkes, who was to set fire to the powder, was caught just in time to prevent him.

Who was king after James?

His son Charles, whose unwise and arbitrary conduct provoked a sad civil war.

Was he successful?

No, and he was at length beheaded. No king then reigned in England, but Oliver Cromwell, a brave and wise man, really ruled the country and led the army. A little while after his death, Charles II., the son of Charles I., was made king.

Was this reign remarkable for any great event?

Yes, a great Plague occurred in London, by which great numbers of people died, and then a great Fire broke out and burnt down a large part of the city.

Who was king after Charles II.?

His brother James II., but he acted so very badly, that the crown was taken from him and given to his daughter and son-in-law.

What were their names?

William and Mary, and they ruled well.

Who succeeded them?

Mary's sister Anne, in whose reign the complete union of England and Scotland took place.

Who was the next king?

George I., whose mother was granddaughter of James I. George's son, George II., was king after him, and his reign is famous for the conquest of Canada.

Who was the next king?

George III. He reigned for very many years, and the famous battle of Waterloo was gained in this reign by Wellington over Napoleon.

Who was king after George III.?

George IV. He reigned ten years, and was succeeded by his brother, William IV.

What great events distinguished his reign?

The passing of the Great Reform Bill in 1832, *and the setting free of all the slaves.*

Who was the next sovereign?

Queen Victoria, who is still on the throne. She began to reign in 1837; *in* 1840 *she married her cousin, Prince Albert of Saxe-Coburg Gotha, but he died in* 1861.

III.—GEOGRAPHY.

What is Geography?

The science which teaches us about the surface of the earth.

Into what is the surface of the earth divided?

Into land and water.

Which is the most?

Water.

How is the land divided?

Into continents, islands, peninsulas, isthmuses, and capes. There are also mountains, hills, valleys, and plains.

How is the water divided?

Into oceans, seas, gulfs, straits, bays, lakes, and rivers.

What is a continent?

The largest division of land.

How many are there in the world?

Five—Europe, Asia, Africa, America, and Australia; the last is really an immense island, but it is so large that it is often spoken of as a continent.

What is an island?

A piece of land entirely surrounded by water; an archipelago is a group of small islands.

What is a peninsula?

A piece of land almost surrounded by water.

What is an isthmus?

A narrow neck of land joining two larger portions together.

What is a cape?

A point of land jutting out into the sea.

What is a mountain?

A very high elevation of land.

What is a hill?

A high elevation of land, but not so high as a mountain.

What is a valley?

Low-lying land between sides that rise up on either hand, as between hills or mountains.

What is a plain?

A level piece of land.

What is an ocean?

The largest division of water.

How many oceans are there on the earth?

Five: the Atlantic Ocean, the Arctic, the Antarctic, the Pacific, and the Indian Ocean.

What is a sea?

A large portion of salt water, but not so large as an ocean.

What is a gulf?
A gulf is a portion of sea water running deep into the land.
What is a bay?
A bay is sea water running only a little way into the land.
What is a strait?
A narrow portion of sea water joining two larger parts.
What is a lake?
Water surrounded by land.
What is a river?
Water flowing through land to the sea.
What is the shape of the earth?
Round like an orange.
What is the equator?
An imaginary line passing round the centre of the earth.
What are the poles?
The points at the top and bottom, or, at the north and south of the earth.
What are the countries of Europe?
The British Isles, France, Spain, Portugal, the German Empire, Austria-Hungary, Switzerland, Italy, Turkey, Greece, Russia, Sweden and Norway.
What are the principal countries of Asia?
China, Japan, Tartary, India, Persia, Arabia, Asiatic Turkey, and Siberia.
What are the principal countries of Africa?
Egypt, Algeria, Nubia, Abyssinia, Morocco, Cape Colony, and Natal.
What are the principal countries of America?
America is divided into North and South America, and in North America there are the United States and Canada, or British America; in South America there are Peru, Chili, Brazil, and Patagonia.
Which are the principal European islands?
Great Britain and Ireland; Iceland, a very cold place, much farther north than Britain; Sicily, a lovely island at the foot of Italy; Corsica, and Sardinia.
Which are the principal islands in Asia?
Ceylon, the most beautiful island in the world; Sumatra, Java, Borneo, the Malaccas or Spice Islands, and the Japan Islands.
Which are the principal African islands?
Madagascar, a large and fruitful island near the eastern coast of Africa; St. Helena, a lonely and rocky isle, where Napoleon Bonaparte died in 1821; the Cape Verd Islands, the Canary Isles, the Azores, and Madeira.
Tell me some of the principal American islands?
Newfoundland, celebrated for its cod fisheries; the West Indies, a cluster of rich and beautiful islands, of which Jamaica, Cuba, and Hayti are the chief, and Juan Fernandez, an island not far west of Chili, where Robinson Crusoe was supposed to have lived.
Mention the greatest peninsula in Europe?
That part occupied by the countries of Spain and Portugal.
Mention some of the most famous isthmuses in the world?
The isthmus of Suez, which unites Asia to Africa, and through this isthmus a canal has been cut, so that ships can sail through from the Mediterranean to the Red Sea; the isthmus of Darien, or Panama, which joins North and South America together.
Mention some of the principal gulfs and bays?
The Gulf of Venice or Adriatic Sea, between Italy and Turkey, the Bay of Biscay, the Bay of Bengal, the Persian Gulf, and the Gulf of Mexico.
Mention some of the principal Straits?
The Straits of Dover between England and France, the Straits of Gibraltar between Spain and Africa, the Bosphorus and the Hellespont

between Europe and Asia, the Straits of Babel Mandeb, Behring's Straits between Asia and America, and the Straits of Magellan between Patagonia and Tierra del Fuego.

Tell me some of the principal mountains.

Ben Nevis in Scotland, the highest in the British Isles, Snowden in Wales, the Alps in Switzerland, one of which, Mont Blanc, is the highest mountain in Europe; the Pyrenees between France and Spain, the Himalayas in India, the Andes in South America, and the Rocky Mountains in North America.

Mention some of the principal cities in the world?

London, the principal city in England; Edinburgh, the principal city in Scotland; Dublin, the principal city of Ireland; Paris in France, Berlin in Germany, St. Petersburg in Russia, Calcutta in India, Melbourne and Sydney in Australia; New York, Boston, Chicago, and San Francisco in the United States, and Quebec and Montreal in Canada.

IV.—ARITHMETIC.

What are the first four rules of Arithmetic?

Addition, Subtraction, Multiplication, and Division.

What is Addition?

Adding together, as 2 *and* 2 *are* 4, 3 *and* 3 *are* 6, *&c.*

What is Subtraction?

Taking away from, as 2 *taken from* 4 *leaves* 2, 3 *from* 8 *leaves* 5.

What is Multiplication?

Multiplying numbers together, as 3 *times* 2 *are* 6; *thus, if there are three children, and we have to give two apples to each, we should require six altogether.*

What is Division?

Dividing out numbers, as 8 *divided by* 4 *is* 2; *thus, if we have eight apples to divide among four children, each would get two.*

V.—GRAMMAR.

What does Grammar teach us?

To speak correctly.

How many parts of speech are there?

Nine: Article, Noun, Pronoun, Verb, Adjective, Adverb, Preposition, Conjunction, and Interjection.

What is an Article?

An article says whether we mean to point out anything definitely or indefinitely, as, a *man,* an *apple; these are the indefinite articles, as they do not mean any man or apple in particular, but* the *man, the apple, points out one particular man or apple;* the *is called the definite article.*

What is a Noun?

A noun is the name of a person, place, or thing.

What is a Pronoun?

A pronoun stands in place of a noun.

What is a Verb?

A verb expresses doing, or suffering, or being, as Tom strikes, *Harry* is struck, *I* am *here.*

What is an Adverb?

An adverb qualifies a verb, as she sings loudly.

What is an Adjective?

An adjective qualifies a noun, as a good *apple.*

What is a Preposition?

Prepositions govern nouns, as on *the moor.*

What are Conjunctions?

They join words and sentences together.

What are Interjections?

Words of exclamation, as oh! ah!

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